Metropolitan Transportation Authority

Audit Committee Meeting

May 2020

Committee Members

H. Mihaltses, Chair
D. Jones
R. Mujica, Jr.

Audit Committee Meeting

2 Broadway
20th Floor Board Room
Wednesday, 5/20/2020
10:00 AM - 5:00 PM ET

1. PUBLIC COMMENTS

2. APPROVAL OF MINUTES

3. AUDIT COMMITTEE WORK PLAN

4. 2019 AUDITED FINANCIAL STATEMENTS

5. MANAGEMEMT REVIEW OF MTA CONSOLIDATED FINANCIAL STATEMENTS

MINUTES OF MEETING
AUDIT COMMITTEE OF THE BOARD
WEDNESDAY, MARCH 25, 2020 – 10 A.M.
RONAN BOARD ROOM – 20TH FLOOR
2 BROADWAY

Considering the ongoing COVID-19 public health crisis, there was no meeting of the Audit Committee in March. Instead, the MTA Chairman convened a one-day virtual Board and Committee meeting session on March 25, 2020, which included the Audit Committee. For a summary of the Board members present (in person or by videoconference), MTA staff members present (in person or by videoconference), public speakers, Chairman Foye's opening remarks, and details relative to the follow committees: LIRR and Metro-North, NYC Transit, Bridges & Tunnels and Finance, please see the March 25, 2020 Board minutes in the April Board Book available on the MTA's website: https://new.mta.info/transparency/board-and-committee-meetings/april-2020.

MTA Chairman Foye introduced Acting Auditor General Michele Woods (AAG). The AAG stated that there are seven items requiring a vote. Four items relate to internal MTA processes, and the remaining three items are related to work performed by the MTA's external Auditors Deloitte. The Audit Committee could not vote on these items in February because the Committee did not have a quorum. The four internal items are: (1) the minutes of the September 25, 2019 Audit Committee meeting, (2) the Audit Committee Work Plan, (3) the revised Enterprise Risk Management and Internal Control Guidelines, and (4) the proposed 2020 Audit Plan. There was one additional change to the Work Plan. The Audit Committee scheduled for April will be moved to May. The MTA is required to adopt GASB Statement 84 in which the fiduciary activities of the MTA are reported in the financial statements. We anticipate having the draft financial statements available in April. A motion was made and seconded to approve the four internal items.

The remaining three items relate to work performed by the MTA's External Auditors from Deloitte. The first item is the audit of the 3rd Quarter 2019 Consolidated Financial Statements, and the second is the audit of the 2018 financial statements for the following Pension Plans:

1. The MNR Cash Balance Plan;
2. The MaBSTOA Pension Plan;
3. The MTA Defined Benefit Pension Plan;
4. The MTA Deferred Compensation Program;
5. The LIRR Company Plan for Additional Pensions; and
6. The MTA Retiree Welfare Benefit Plan.

The third item is Deloitte's review of the MTA Inspector General's Office. Jill Strohmeyer of Deloitte briefed the Audit Committee last month on the results of these reviews, and she noted that there were no significant changes in accounting policies, uncorrected misstatements, or material misstatements. Strohmeyer was available remotely to answer any questions on these items. Upon motion made and duly seconded, the Board approved the aforementioned three items.

Respectfully submitted,

Michele Woods

Michele Woods
Acting Auditor General

2020 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 2020

Quarterly Financial Statements – 3rd Quarter 2019	External Auditor/CFOs/Controllers
Pension Audits (2018)	External Auditor/Comptroller
Review of MTA/IG's Office (FY 2018)	External Auditor
Enterprise Risk Management Update and Internal Control Guidelines	Chief Compliance Officer
Compliance with the Internal Control Act	Chief Compliance Officer/Agency ICOs
2019 Audit Plan Status Report	Auditor General
2020 Audit Plan	Auditor General
DDCR Performance Measures	Chief Diversity Officer

May 2020

2019 Audited Financial Statements	External Auditor/CFOs/Controllers
Management's Review of Consolidated Financial Statements	Comptroller
Information Technology Report	Chief Information Officer
Open Audit Recommendations	Agency ICOs/Chief Compliance Officer
Contingent Liabilities/Third Party Lawsuits (Executive Session)	General Counsels/External Auditor

July 2020

Quarterly Financial Statements – 1st Quarter 2020	External Auditor/CFOs
Pension Audits (2019)	External Auditor/Comptroller
Single Audit Report	External Auditor/CFOs
Investment Compliance Report	External Auditor
Review of MTA/IG's Office (FY 2019)	External Auditor
Management Letter Reports	External Auditor/CFOs/Controllers
Enterprise Risk Management Update	Chief Compliance Officer
Ethics and Compliance Program	Chief Compliance Officer
Financial Interest Reports	Chief Compliance Officer
MTAAS 2020 Audit Plan Status Report	Auditor General
DDCR Performance Measures	Chief Diversity Officer
Security of Sensitive Data & Systems (Executive Session)	Chief Information Officer

October 2020

Quarterly Financial Statements – 2nd Quarter 2020	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
Annual Audit Committee Report	Committee Chair
Open Audit Recommendations	Agency ICOs/Chief Compliance Officer

2020 AUDIT COMMITTEE WORK PLAN

I. RECURRING AGENDA ITEMS

Each Meeting

Approval of Minutes

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

Audit Work Plan

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

As Appropriate

Pre-Approval of Audit and Non-Auditing Services

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

Follow-Up Items

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

Status of Audit Activities

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

Executive Sessions

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

II. SPECIFIC AGENDA ITEMS

JANUARY 2020

Quarterly Financial Statements - 3rd Quarter 2019

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

Pension Audits

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

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

ii Audit of the Pension Plans Financial Statements

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

Review of the MTA Inspector General's Office

Representatives of MTA's public accounting firm will provide the results of their 2018 "agreed-upon" review procedures on the MTA/IG's operating expenses to ensure compliance with applicable policies and procedures.

Enterprise Risk Management Update and Internal Control Guidelines

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

Compliance with 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 2019/2020 Audit Plans

i. 2019 Audit Plan Status

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

ii 2020 Audit Plan

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

DDCR Performance Measures

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

MAY 2020

2019 Financial Statements

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

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

Information Technology Report
The MTA Chief Information 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.

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 2020

Quarterly Financial Statements – 1st Quarter 2020
Representatives of MTA's public accounting firm, in conjunction with appropriate agency management, will discuss the interim financial statement that was prepared for the first quarter of 2020.

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 2019 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.

Review of the MTA Inspector General's Office
Representatives of MTA's public accounting firm will provide the results of their 2019 "agreed-upon" review procedures on the MTA/IG's operating expenses to ensure compliance with applicable policies and procedures.

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

Enterprise Risk Management Update
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 2020 Audit Plan Status Report
A briefing by Audit Services that will include a status of the work completed as compared to the audits planned for the year, a summary of the more significant audit findings, results of audit follow-up, and a discussion of the other major activities performed by the department.

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

Security of Sensitive Data & 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.

OCTOBER 2020

Quarterly Financial Statements – 2nd Quarter 2020
Representatives of MTA's public accounting firm, in conjunction with appropriate agency management, will discuss the interim financial statement that was prepared for the second quarter of 2020.

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

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

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

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

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

DRAFT

Metropolitan Transportation Authority

(A Component Unit of the State of New York)

Consolidated Financial Statements as of and
for the Years Ended December 31, 2019 and 2018
Required Supplementary Information,
Supplementary Information and
Independent Auditors' Report

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DRAFT

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INDEPENDENT AUDITORS' REPORT

To the Members of the Board of
Metropolitan Transportation Authority

Report on the Financial Statements

We have audited the accompanying consolidated financial statements of the business-type activities and the financial statements of the fiduciary activities (collectively, the "financial statements") of the Metropolitan Transportation Authority (the "MTA"), a component unit of the State of New York, as of and for the years ended December 31, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the MTA's basic financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and fiduciary activities of the MTA as of December 31, 2019 and 2018, and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matters

As discussed in Note 1 to the financial statements, the MTA is a component unit of the State of New York. The MTA requires significant subsidies from, and has material transactions with, the City of New York, the State of New York, and the State of Connecticut, and depends on certain tax revenues that are economically sensitive. Our opinions are not modified with respect to this matter.

As described in Note 2 to the financial statements, as of January 1, 2018, the Authority adopted Governmental Accounting Standards Board ("GASB") Statement No. 84, Fiduciary Activities. Our opinions are not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the required supplementary information on pages 6-18 and 100-114 as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the MTA's basic financial statements. The supplementary information on pages 115-121 as listed in the table of contents are presented for the purposes of additional analysis and are not a required part of the basic financial statements.

The supplementary information on pages 115-121 as listed in the table of contents are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information on pages 115-121 as listed in the table of contents is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

May 26, 2020

METROPOLITAN TRANSPORTATION AUTHORITY

(A Component Unit of the State of New York)

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018

($ In Millions, except as noted)

The Reporting entity includes:

(1) the Primary Government which is comprised of the following component units:

- MTA Headquarters, including MTA Construction and Development
- MTA Long Island Railroad
- MTA Metro-North Commuter Railroad
- MTA Staten Island Railway
- First Mutual Transportation Assurance Company
- MTA Bus
- MTA New York City Transit Authority, and its blended component unit, Manhattan and Bronx Surface Transit Operating Authority, MaBSTOA
- MTA Bridges and Tunnels

The component units provide 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 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 FINANCIAL STATEMENTS

Introduction

This report consists of seven parts: Management's Discussion and Analysis ("MD&A"), Consolidated Financial Statements, Fiduciary Funds Financial Statements, Notes to the Consolidated 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 and for the years ended December 31, 2019 and 2018. For financial reporting purposes, the subsidiaries and affiliates of the MTA are blended component units. This management discussion and analysis is intended to serve as an introduction to the MTA Group's consolidated 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 financial statements.

The Consolidated Financial Statements

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

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

Notes to the Consolidated Financial Statements

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

Required Supplementary Information

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

Supplementary Information - Combining Fiduciary Funds Financial Statements

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

Supplementary Information

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

FINANCIAL REPORTING ENTITY

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

MTA Related Groups

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

- Metropolitan Transportation Authority Headquarters ("MTAHQ") provides support in budget, cash management, finance, legal, real estate, treasury, risk and insurance management, and other services to the related groups listed below.
- The Long Island Rail Road Company ("MTA Long Island Rail Road") provides passenger transportation between New York City ("NYC") and Long Island.
- Metro-North Commuter Railroad Company ("MTA Metro-North Railroad") provides passenger transportation between NYC and the suburban communities in Westchester, Dutchess, Putnam, Orange, and Rockland counties in New York State ("NYS") and New Haven and Fairfield counties in Connecticut.
- Staten Island Rapid Transit Operating Authority ("MTA Staten Island Railway") provides passenger transportation on Staten Island.
- First Mutual Transportation Assurance Company ("FMTAC") provides primary insurance coverage for certain losses, some of which are reinsured, and assumes reinsurance coverage for certain other losses.
- MTA 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.

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

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

CONDENSED CONSOLIDATED FINANCIAL INFORMATION AND CONDENSED CONSOLIDATED FINANCIAL INFORMATION

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

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

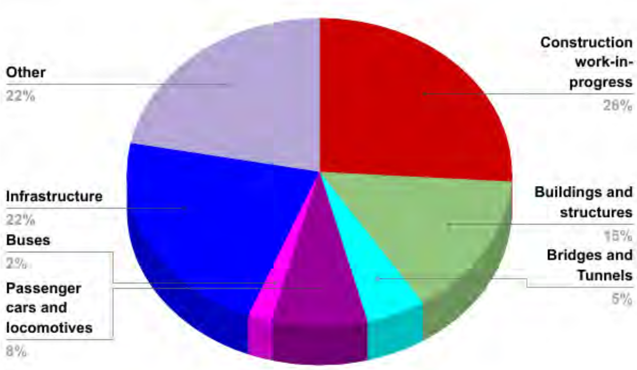
Capital assets include, but are not limited to: bridges, structures, tunnels, construction of buildings and the acquisition of buses, equipment, passenger cars, and locomotives.

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.

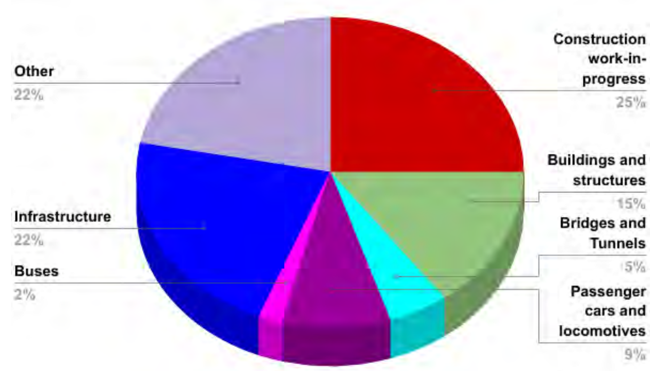
Deferred outflows of resources reflect: changes in fair market values of hedging derivative instruments that are determined to be effective, unamortized loss on refunding, deferred outflows from pension activities, and deferred outflows from OPEB activities.

(In millions)	December 31, 2019	December 31, 2018	December 31, 2017	Increase / (Decrease) 2019 - 2018	Increase / (Decrease) 2018 - 2017
Capital assets — net (see Note 6)	$ 77,409	$ 72,511	$ 68,060	$ 4,898	$ 4,451
Other assets	8,856	7,827	8,533	1,029	(706)
Total Assets	86,265	80,338	76,593	5,927	3,745
Deferred outflows of resources	5,300	4,360	3,687	940	673
Total assets and deferred outflows of resources	$ 91,565	$ 84,698	$ 80,280	$ 6,867	$ 4,418

Capital Assets, Net - December 31, 2019



Capital Assets, Net - December 31, 2018



Significant Changes in Assets and Deferred Outflows of Resources Include:

<u>December 31, 2019 versus December 31, 2018</u>

- Net capital assets increased at December 31, 2019 by $4,898 or 6.8%. There was an increase in other capital assets of $2,094, an increase in construction in progress of $2,013, an increase in land of $6, an increase infrastructure of $1,470, an increase in buildings and structures of $1,102, an increase in passenger cars and locomotives of $494, an increase in bridges and tunnels of $72, and a decrease in buses of $ 131. That was offset by a net increase in accumulated depreciation of $2,222. See Note 6 to the MTA's Consolidated Financial Statements for further information. Some of the more significant projects contributing to the net increase included:
  - Continued progress on the East Side Access, Second Avenue Subway and Number 7 Extension Project.
  - Infrastructure work including:
    - Repairs and improvements of all MTA Bridge and Tunnels' facilities.
    - Improvements to MTA Long Island Railroad's road-assets, replacement of signal power lines, various right-of-way enhancements and upgrades of radio communications.
    - Continued improvements to MTA Metro-North Railroad stations, tracks and structures, power rehabilitation of substations, and security.
    - Subway and bus real-time customer information and communications systems.
    - Continued structural rehabilitation and repairs of the ventilation system at various facilities.
  - Continued improvements made to the East River Tunnel Fire and Life Safety project for 1st Avenue, Long Island City and construction of three Montauk bridges.
  - Continued passenger station rehabilitations for Penn Station and East Side Access Passenger station.
  - Ongoing work by MTA New York City Transit to make stations fully accessible and structurally reconfigured in accordance with the Americans with Disability Act ("ADA") standards.
- Other assets increased by $1,029 or 13.1%. The major items contributing to this change include:
  - An increase in investments of $1,194 mainly due to funds from mobility tax.
  - A decrease in current and non-current receivables of $214 primarily due to a decrease in Federal and State grants for capital projects of $118, a decrease in subsidies from New York City for MTA New York City Transit and MTA Bus of $61, and a decrease in other non-current receivables of $27. This decrease was offset by an increase in State and

regional mass transit taxes of $34, and an increase in State and local operating assistance of $35. There was also a net decrease in various current and non-current receivables of $81 primarily due to a higher allowance of doubtful accounts.

- A net increase in various other current and noncurrent assets of $40 primarily due to an increase in materials of $34.
- An increase in cash of $13 from net cash flow activities.

- Deferred outflows of resources increased by $940 or 21.6%. This increase in deferred outflows is primarily related to higher deferred outflows related to pensions of $946 due to changes in the actuarially determined calculations for the pension plans. There was also an increase in the fair value of derivative instruments of $90, an increase in deferred outflows related to OPEB activities of $41 due to changes in actuarial calculations for OPEB, and a decrease in deferred outflows for unamortized losses on refundings of $137.

December 31, 2018 versus December 31, 2017

- Net capital assets increased at December 31, 2018 by $4,451 or 6.5%. There was an increase in infrastructure of $2,424, an increase in other capital assets of $1,813, an increase in construction in progress of $1,074, an increase in buildings and structures of $741, an increase in bridges and tunnels of $550, an increase in buses of $195, and a decrease in passenger cars and locomotives of $482. That was offset by a net increase in accumulated depreciation of $1,864. See Note 6 to the MTA's Consolidated Financial Statements for further information. Some of the more significant projects contributing to the net increase included:
  - Continued progress on the East Side Access, Second Avenue Subway and Number 7 Extension Project.
  - Infrastructure work including:
    - Repairs and improvements of all MTA Bridge and Tunnels' facilities.
    - Improvements to MTA Long Island Railroad's road-assets, replacement of signal power lines, various right-of-way enhancements and upgrades of radio communications.
    - Continued improvements to MTA Metro-North Railroad stations, tracks and structures, power rehabilitation of substations, and security.
    - Subway and bus real-time customer information and communications systems.
    - Continued structural rehabilitation and repairs of the ventilation system at various facilities.
  - Continued improvements made to the East River Tunnel Fire and Life Safety project for 1st Avenue, Long Island City and construction of three Montauk bridges.
  - Continued passenger station rehabilitations for Penn Station and East Side Access Passenger station.
  - Ongoing work by MTA New York City Transit to make stations fully accessible and structurally reconfigured in accordance with the Americans with Disability Act ("ADA") standards.
- Other assets decreased by $706 or 8.3%. The major items contributing to this change include:
  - A decrease in investments of $1,008 mainly due to use of funds for capital projects.
  - An increase in current and non-current receivables of $51 primarily due to an increase in subsidies from New York City for MTA New York City Transit and MTA Bus of $102, an increase in Federal and State grants for capital projects of $22, a net decrease in other subsidies of $24 and a decrease in receivables from New York State for Service Contract Bonds of $33. There was also a net decrease in various current and non-current receivables of $16.
  - An increase in cash of $258 from net cash flow activities.
  - A net decrease in various other current and noncurrent assets of $7.
- Deferred outflows of resources increased by $673 or 18.3%. This increase in deferred outflows is primarily related to OPEB activities of $1,496 due to the implementation of GASB Statement No. 75, lower deferred outflows related to pensions of $647 due to changes in the actuarially determined calculations for the pension plans related to changes in certain actuarial assumptions. There was also a decrease in the fair value of derivative instruments of $79, and a decrease in deferred outflows for unamortized losses on refundings of $97.

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

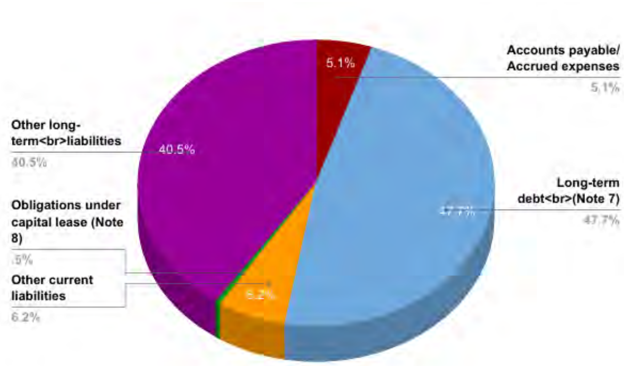
Current liabilities include: accounts payable, accrued expenses, current portions of long-term debt, capital lease obligations, pollution remediation liabilities, unredeemed fares and tolls, and other current liabilities.

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

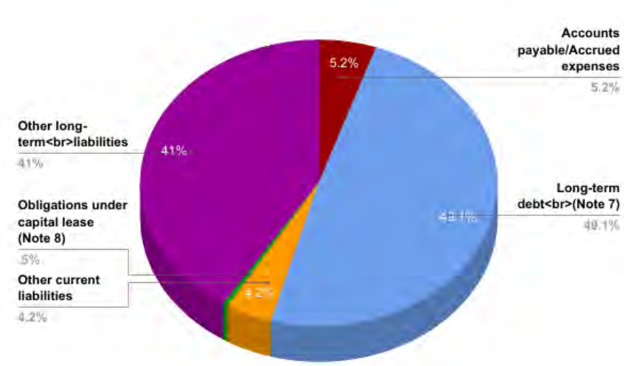
Deferred inflows of resources reflect unamortized gains on refunding, pension related deferred inflows, and deferred inflows from OPEB activities.

	December 31,			Increase/(Decrease)	
(In millions)	**2019**	**2018**	**2017**	**2019 - 2018**	**2018 - 2017**
Current liabilities	$ 9,758	$ 7,609	$ 6,246	$ 2,149	$ 1,363
Non-current liabilities	74,727	72,022	68,304	2,705	3,718
Total liabilities	84,485	79,631	74,550	4,854	5,081
Deferred inflows of resources	2,629	1,114	506	1,515	608
Total liabilities and deferred inflows of resources	$ 87,114	$ 80,745	$ 75,056	$ 6,369	$ 5,689

Total Liabilities - December 31, 2019



Total Liabilities - December 31, 2018



Significant Changes in Liabilities and Deferred Inflows of Resources Include:

December 31, 2019 versus December 31, 2018

- Current liabilities increased by $2,149 or 28.2%. The net increase in current liabilities was primarily due to a an increase of current portion of long-term debt of $2,021 due to new bond issues, an increase of $84 in other accrued expenses, an increase in interest payable of $77 due to new bonds issued in 2019, an increase in capital accruals of $48 due to new projects, an increase in estimated liability arising from injuries to persons (Note 11) of $47, an increase in the current portion obligations under capital leases (Note 9) of $10, an increase of $42 in employee related accruals and a decrease in unearned premiums of $62. In addition, there was a decrease in unearned revenues of $81, a decrease in accounts payable due to vendors of $27, and a net decrease in various other current liabilities of $10.
- Non-current liabilities increased by $2,705 or 3.8%. This increase was mainly due to:
  - An increase in the non-current portion of long-term debt of $1,955 primarily due to 2019 bond issuances (See Note 7).
  - An increase in pension liability of $1,097, resulting from actuarial calculations as required by GASB Statement No. 68 (see Note 4).
  - An increase in estimated liability arising from injuries to persons (Note 10) of $286 due to revised actuarial calculations of the workers' compensation reserve.
  - An increase in derivative liability (Note 8) of $84.
  - A decrease in net OPEB liability of $753 due to changes in actuarial calculations for OPEB as required by GASB Statement No. 75 (Note 5).
  - A net increase in other various non-current liabilities of $36 primarily due to an increase in contract retainage payable due upon completion of projects.

- Deferred inflows of resources increased by $1,515 or 136.%, primarily due higher deferred inflows related to OPEB of $1,654 due to changes in actuarial calculations for OPEB as required by GASB Statement No. 75. A decrease in deferred inflows related to pensions of $136 as a result of changes in the actuarially determined calculations for the pension plans as required by GASB Statement No. 68, and a decrease in the gain on refunding of debt of $3.

December 31, 2018 versus December 31, 2017

- Current liabilities increased by $1,363 or 21.8%. The net increase in current liabilities was primarily due to a net increase of $87 in other accrued expenses, an increase in capital accruals of $325, an increase in estimated liability arising from injuries to persons (Note 11) of $39, an increase in unearned premiums of $9, an increase in interest payable of $6, an increase of $54 in employee related accruals. In addition, there was an increase in unearned revenues of $210, largely due to grant funds received in advance before expenditures for grants have been incurred, a decrease in accounts payable due to vendors of $137, an increase of current portion of long-term debt of $746 due to new bond issues, an increase in the current portion of pollution remediation projects of $11, and an increase in various other current liabilities of $13 primarily due to an increase in derivative fuel hedge liability (Note15) of $12.
- Non-current liabilities increased by $3,718 or 5.4%. This increase was mainly due:
  - An increase in the non-current portion of long-term debt of $1,325 primarily due to 2018 bond issuances (See Note 7).
  - An increase in net OPEB liability of $3,604 as a result of adopting GASB Statement No. 75 (Note 5).
  - An increase in estimated liability arising from injuries to persons (Note 10) of $364 due to revised actuarial calculations of the workers' compensation reserve.
  - A net increase in other various non-current liabilities of $43 primarily due to an increase in pollution remediation projects requiring corrective work requirements.
  - A decrease in pension liability of $1,618, resulting from actuarial calculations as required by GASB Statement No. 68 (see Note 4).
- Deferred inflows of resources increased by $608 or 120.2%, primarily due to higher deferred inflows related to pensions of $590 as a result of changes in the actuarially determined calculations for the pension plans for changes in certain actuarial assumptions. An increase in deferred inflows related to OPEB of $21 as a result of adopting GASB Statement No. 75, and a decrease in the gain on refunding of debt of $3.

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

(In millions)	December 31,			Increase/(Decrease)	
	2019	2018	2017	2019 - 2018	2018 - 2017
Net investment in capital assets	$ 31,271	$ 30,000	$ 28,250	$ 1,271	$ 1,750
Restricted for debt service	554	454	516	100	(62)
Restricted for claims	219	206	182	13	24
Restricted for other purposes	1,064	1,230	983	(166)	247
Unrestricted	(28,657)	(27,937)	(24,707)	(720)	(3,230)
Total Net Position	$ 4,451	$ 3,953	$ 5,224	$ 498	$ (1,271)

Significant Changes in Net Position Include:

December 31, 2019 versus December 31, 2018

At December 31, 2019, total net position increased by $498 or 12.6%, when compared with December 31, 2018. This change is a result of net non-operating revenues of $5,700 and appropriations, grants and other receipts externally restricted for capital projects of $3,298, and by operating losses of $8,500.

The net investment in capital assets increased by $1,271 or 4.2%. Funds restricted for debt service, claims and other purposes decreased by $53 or 2.8% in the aggregate, mainly due to a $100 increase in funds restricted for debt service, which was offset by a decrease in funds restricted for other purposes of $166. Unrestricted net position decreased by $720 or 2.6%.

December 31, 2018 versus December 31, 2017

At December 31, 2018, total net position decreased by $1,271 or 24.3%, when compared with December 31, 2017. This change is a result of net non-operating revenues of $5,653 and appropriations, grants and other receipts externally restricted for capital projects of $2,302, offset by restatement of beginning net position of $1,121 and by operating losses of $8,105.

The net investment in capital assets increased by $1,750 or 6.2%. Funds restricted for debt service, claims and other purposes increased by $209 or 12.4% in the aggregate, mainly due to scheduled debt service payments. Unrestricted net position decreased by $3,230 or 13.1%.

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

(In millions)	December 31, 2019	December 31, 2018	December 31, 2017	Increase/(Decrease) 2019 - 2018	2018 - 2017
Operating revenues					
Passenger and tolls	$ 8,422	$ 8,131	$ 8,084	$ 291	$ 47
Other	621	605	589	16	16
Total operating revenues	9,043	8,736	8,673	307	63
Non-operating revenues					
Grants, appropriations and taxes	6,767	6,407	5,722	360	685
Other	500	839	782	(339)	57
Total non-operating revenues	7,267	7,246	6,504	21	742
Total revenues	16,310	15,982	15,177	328	805
Operating expenses					
Salaries and wages	6,310	6,300	5,968	10	332
Retirement and other employee benefits	3,125	2,447	2,742	678	(295)
Postemployment benefits other than pensions	1,613	1,749	2,155	(136)	(406)
Depreciation and amortization	2,870	2,679	2,611	191	68
Other expenses	3,623	3,666	3,374	(43)	292
Operating expenses	17,541	16,841	16,850	700	(9)
Net expenses related to asset impairment	1	-	-	1	-
Total operating expenses	17,542	16,841	16,850	701	(9)
Non-operating expenses					
Interest on long-term debt	1,557	1,460	1,517	97	(57)
Loss on disposal of subway cars	-	125	-	(125)	125
Other net non-operating expenses	11	8	8	3	-
Total non-operating expenses	1,568	1,593	1,525	(25)	68
Total expenses	19,110	18,434	18,375	676	59
Loss before appropriations, grants and other receipts externally restricted for capital projects	(2,800)	(2,452)	(3,198)	(348)	746
Appropriations, grants and other receipts externally restricted for capital projects	3,298	2,302	2,662	996	(360)
Change in net position	498	(150)	(536)	648	386
Net position, beginning of year	3,953	5,224	5,607	(1,271)	(383)
Restatement of beginning net position - adoption of GASB No. 75	-	(1,121)	-	1,121	(1,121)
Cumulative effect of change in accounting principle	-	-	153	-	(153)
Net position, end of year	$ 4,451	$ 3,953	$ 5,224	$ 498	$ (1,271)

Revenues and Expenses, by Major Source:

Years ended December 31, 2019 versus 2018

- Total operating revenues increased by $307 or 3.5%. This increase was due to an increase in toll revenue of $95 primarily due to an increase in vehicle crossings for the year ended December 31, 2019, when compared to the year ended December 31, 2018. Other operating revenues increased by $16 due to higher advertising revenues collected on behalf of all agencies. Fare revenue also increased by $196 due to higher ridership.
- Total non-operating revenues increased by $21 or 0.3%.
  - The favorable variance of $360 in grants, appropriations, and taxes was primarily due to increases in tax-supported subsidies from New York State, New York City and local service areas. There was an increase in Payroll Mobility Tax of $151, an increase in Metropolitan Mass Transportation Operating of $137, an increase in Operating Assistance of $53, an increase in Mass Transportation Trust Fund of $16, an increase in Mortgage Recording Tax subsidies of $21, an increase in New York Assistance Fund of $375, an increase in Internet Sales Tax of $85, and an increase in Mansion Tax of $74. The increases were offset by a decrease of $508 for the Subway Action Plan, a decrease in NYS Service Contract subsidy of $1, a decrease in Urban Tax subsidies of $59, an increase in MTA Aid Trust of $17, and a decrease in Build America Bond subsidy of $1.

- Other non-operating revenues decreased by $339 primarily due to a decrease in other net non-operating revenues of $348, offset by an increase in subsidies from the Connecticut Department of Transportation for the MTA Metro-North Railroad of $2, an increase in subsidies from New York City of $4 for MTA Bus and MTA Staten Island Railway, and an increase in Station maintenance by $3.

- Labor costs increased by $552 or 5.3%. The major changes within this category are:
  - Retirement and employee benefits increased by $678 primarily due to current actuarial valuation for pensions under GASB Statement No. 68.
  - Salaries, wages and overtime increased by $10 primarily due to increases in MTA New York City Transit to support various maintenance and weather-related requirements.
  - Postemployment benefits other than pensions decreased by $136 due to current actuarial valuation for OPEB under GASB Statement No. 75.
- Non-labor operating costs increased by $149 or 2.3%. The variance was primarily due to:
  - An increase in depreciation of $191 primarily due to more assets placed in service in the current year.
  - A decrease in pollution remediation projects of $64 primarily due to lower areas of exposure requiring corrective work requirements.
  - An increase in claims arising from injuries to persons of $57 based on the most recent actuarial valuations.
  - An increase in maintenance and other operating contracts by $53.
  - An increase in material and supplies by $10, mainly due to revised maintenance and repairs requirements for transit and commuter systems.
  - An increase in paratransit service contracts of $22 primarily due to higher paratransit taxi expenses.
  - An increase in insurance of $30 due to higher property and liability reserve requirements.
  - A decrease in professional service contracts of $108 due to changes in consulting services requirements.
  - A decrease in electric power of $38 and fuel of $11 due to changes in rates and consumption.
  - A net increase in other various expenses of $7.
- Total net non-operating expenses decreased by $25 or 1.6% primarily due to a decrease in the loss on disposal of subway cars of $125 offset by an increase in interest on long-term debt of $97, and an increase in other net non-operating expenses by $3.
- Appropriations, grants and other receipts externally restricted for capital projects increased by $996 or 43.3%, mainly due to timing in the availability of Federal and State grants for capital projects.

Years ended December 31, 2018 versus 2017

- Total operating revenues increased by $63 or 0.7%. This increase was mainly due to an increase in toll revenue of $64 primarily due an increase in vehicle crossings for the year ended December 31, 2018, when compared to the year ended December 31, 2017. Other operating revenues increased by $16 due to higher advertising revenues collected on behalf of all agencies. The increase was offset by a decrease in fare revenue of $17 due to lower ridership.
- Total non-operating revenues increased by $742 or 11.4%.
  - Total grants, appropriations, and taxes increased by $685. This was due to an increase in tax-supported subsidies from New York City and local service areas of $155 mainly due to higher Urban Tax of $161, offset by a decline in Mortgage Recording Tax subsidies of $6. Tax-supported subsidies from New York State increased by $24 primarily due to an increase in Mass Transportation Trust Fund of $27, a decrease in Payroll Mobility Tax of $26, an increase in Operating Assistance of $19 and an increase in MTA Aid of $4. Other subsidies increased by $506 primarily from subsidy support of NYS and NYC for the Subway Action Plan of $508, a decrease in NYS Service Contract subsidy of $4, and an increase in Build America Bond subsidy of $2.
  - Other non-operating revenues increased by $57 primarily due to an increase in subsidies from the Connecticut Department of Transportation for the MTA Metro-North Railroad of $31, an increase in subsidies from New York City of $57 for MTA Bus and MTA Staten Island Railway. This was offset by a net decrease in non-operating revenues of $31.

- Labor costs decreased by $369 or 3.4%. The major changes within this category are:
  - Salaries, wages and overtime increased by $332 primarily due to increases in MTA New York City Transit to support the Subway Action Plan and various maintenance and weather-related requirements.
  - Postemployment benefits other than pensions decreased by $406 as a result of adopting GASB Statement No. 75.
  - Retirement and employee benefits decreased by $295 primarily due to lower pension expenses based upon the current actuarial valuation under GASB Statement No. 68.
- Non-labor operating costs increased by $360 or 6.%. The variance was primarily due to:
  - An increase in pollution remediation projects of $93 primarily due to additional identification of areas of exposure requiring corrective work requirements.
  - An increase in professional service contracts of $120 due to changes in consulting services requirements.
  - An increase in depreciation of $68 primarily due to more assets placed in service in the current year.
  - A decrease in insurance of $26 due to lower property and liability reserve requirements.
  - An increase in electric power of $52 and fuel of $34 due to changes in rates and consumption.
  - An increase in material and supplies by $49, mainly due to revised maintenance and repairs requirements for transit and commuter systems.
  - An increase in paratransit service contracts of $62 primarily due to higher paratransit taxi expenses.
  - A decrease in claims arising from injuries to persons of $88 based on the most recent actuarial valuations.
  - A net decrease in other various expenses of $4.
- Total net non-operating expenses increased by $68 or 4.5% primarily due to an increase in the loss on disposal of subway cars of $125 offset by a decrease in interest on long-term debt of $57.
- Appropriations, grants and other receipts externally restricted for capital projects decreased by $360 or 13.5%, mainly due to timing in the availability of Federal and State grants for capital projects.

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 fourth quarter of 2019 increased relative to 2018, with ridership up by 5.4 million trips (0.2%). The increase was driven by MTA New York City Transit subway ridership, which rose by 17.7 million trips (1.1%). In addition, MTA Long Island Rail Road ridership rose by 1.3 million trips (1.5%) and MTA Metro-North Railroad rose by 0.1 million trips (0.1%). These increases through the fourth quarter were partially offset by ridership declines at MTA New York City Transit bus, which declined by 12.4 million trips (2.2%), MTA Bus, which declined by 1.0 million trips (0.8%), and MTA Staten Island Railway, which declined by 0.2 million trips (4.9%). The decline in bus ridership is consistent with a trend that began in 2009 and has been observed nationally, while the increase in subway ridership is the third quarterly increase after 12 consecutive year-on-year quarterly decreases that began in the second quarter of 2016. Vehicle traffic at MTA Bridges and Tunnels facilities through the fourth quarter increased by 7.1 million crossings (2.2%) compared with 2018 levels. The 2019 New York State Budget approved congestion pricing in Manhattan south of 60th Street, which is scheduled to go into effect in 2021—this will likely impact ridership and vehicle crossings.

Seasonally adjusted non-agricultural employment in New York City for the fourth quarter was higher in 2019 than in 2018 by 79.5 thousand jobs (1.7%). On a quarter-to-quarter basis, New York City employment increased 32.7 thousand jobs, increasing for thirty-seventh consecutive quarter—the last decline occurred in the third quarter of 2010—and was higher than at any time since 1950, when non-agricultural employment levels for New York City were first recorded by the Bureau of Labor Statistics.

National economic growth, as measured by Real Gross Domestic Product ("RGDP"), expanded at an annualized rate of 2.1% in the fourth quarter of 2019, according to the most recent advance estimate released by the Bureau of Economic Analysis. The increase in RGDP reflected increases in consumer spending, government spending, exports, and housing investment, which were partially offset by decreases in inventory investment and business investment. Imports, a subtraction in the calculation of GDP, decreased. The increase in consumer spending reflected increases in goods (led by motor vehicles and parts) and services (led by health care). The increase in government spending reflected increases at the federal, as well as state and local, government levels. The decline in inventory investment reflected a decrease in retail trade inventories (led by motor vehicle dealers), while the decline in business investment reflected a decrease in equipment (led by industrial equipment) and structures (led by mining exploration, shafts, and wells). In the third quarter, the annualized RGDP rate was also 2.1 percent.

The New York City metropolitan area's price inflation, as measured by the Consumer Price Index for All Urban Consumers ("CPI-U"), was lower than the national average in the fourth quarter of 2019, with the metropolitan area index increasing 1.84% while the national index increased 2.03%, when compared with the fourth quarter of 2018. Decreases in both the regional and national price of energy products (2.52% for the region, and 0.56% nationally) contributed to the low inflation rates; in the metropolitan area, the CPI-U exclusive of energy products increased by 2.15%, while nationally, inflation exclusive of energy products increased 2.25%. However, the spot price for New York Harbor conventional gasoline increased by 1.2%, from an average price of $1.70 per gallon to an average price of $1.72 per gallon between the fourth quarters of 2018 and 2019.

The Federal Open Market Committee ("FOMC") lowered its target for the Federal Funds rate during the fourth quarter of 2019, by a quarter point on October 31, 2019 to the target range of 1.50% to 1.75%. Job gains have been solid, on average, in recent months, and the unemployment rate has remained low. Although household spending has been rising at a strong pace, business fixed investment and exports remain weak. On a twelve-month basis, overall inflation and inflation for items other than food and energy are running below 2 percent, and market-based measures of inflation compensation remain low and survey-based measures of longer-term inflation expectations are little changed. The target rate reduction supports the FOMC's view that sustained expansion of economic activity, strong labor market conditions and inflation near the FOMC's 2 percent objective remain the most likely outcomes, but uncertainties remain. The FOMC indicated that the timing and size of future adjustments to the target range would consider realized and expected economic conditions relative to its maximum employment objective and its 2 percent inflation objective, including measures of labor market conditions, indicators of inflation and inflation expectations, and financial and international developments.

The influence of the Federal Reserve's monetary policy on the mortgage market is a matter of interest to the MTA, since variability of mortgage rates can affect the number of real estate transactions and thereby impact receipts from the Mortgage Recording Tax ("MRT") and Urban Tax, two important sources of MTA revenue. Mortgage Recording Tax collections for the fourth quarter of 2019 were higher than the fourth quarter of 2018 by $10.4 (9.6%); receipts in the fourth quarter of 2019 were $10.3 (8.0%) lower than receipts from the third quarter. Despite the overall recovery of MRT receipts that began in 2012 following the financial crisis, average monthly receipts in the fourth quarter of 2019 remain $25.1 (39.5%) lower than the monthly average for 2006, just prior to the steep decline in Mortgage Recording Tax revenues. MTA's Urban Tax receipts—which are based on commercial real estate transactions and mortgage recording activity within New York City, and can vary significantly from quarter to quarter based on the timing of exceptionally high-priced transactions—were $4.0 (2.6%) lower in the fourth quarter of 2019 than receipts for the fourth quarter of 2018; receipts in the fourth quarter of 2019 were $3.2 (2.1%) higher than receipts from the third quarter. Average monthly receipts in the fourth quarter of 2019 were $17.9 (24.3%) lower than the monthly average for 2007, just prior to the steep decline in Urban Tax revenues following the 2008 financial crisis.

Results of Operations

MTA Bridges and Tunnels - Toll revenues (net of bad debt expense relating to toll collections) were $2,071,411 and $1,975,663 for the years ended December 31, 2019 and December 31, 2018, respectively.

At 329.4 million crossings, traffic in 2019 set a record, surpassing the previous high of 322.3 million crossings in 2018 by 2.2%. The increase is primarily due to improvements in the regional economy, relatively favorable winter weather, stable gas prices, and the substantial completion of Sandy restoration work at the Queens Midtown Tunnel and the Hugh L. Carey Tunnel in the fourth quarter of 2018. Toll revenue in 2019 totaled $2.071 billion, which was $95.7, or 4.6% greater than 2018. The additional revenue was due to the higher traffic volume and a toll increase implemented on March 31, 2019.

The E-ZPass electronic toll collection system continued to facilitate management of high traffic volumes. The total average market share as of December 31, 2019 was 95.1% compared to 94.4% as of December 31, 2018. The average weekday market shares for passenger and commercial vehicles were 95.7% and 95.1% for 2019 and 2018, respectively.

MTA New York City Transit - Total revenue from fares was $4,594 in 2019, an increase of $147, or 3.3%, compared to 2018. Total ridership was 2,266 million, an increase of $7 or 0.3% from 2018. Total operating expenses, including depreciation, other post-employment benefits and environmental remediation expenses, were $11,433 in 2019, an increase of $629 or 5.8%.

MTA Long Island Rail Road – Total operating revenue for the year ended December 31, 2019 was $809.2, which was higher by $19.9 or 2.5% compared to the year ended December 31, 2018. For the same comparative period, operating expenses were higher by $16.0 or 0.1%, totaling $2.0 billion for the year ended December 31, 2019.

MTA Metro-North Railroad – For the year ended December 31, 2019, operating revenues totaled $813.2, an increase of $21.1, or 2.7%, compared to 2018. During the same period, operating expenses decreased by $29.0, or 1.7%, to $1,654.1. Fare revenue for 2019 increased by2.2% to $756.7 compared to 2018. Passenger fares accounted for 93.0% and 93.4% of operating revenues in 2019 and 2018, respectively. The remaining revenue represents collection of rental income from stores in and around passenger stations and revenue generated from advertising. Total system-wide Metro-North ridership in 2019 was approximately 87.2 million rides, 85,883 rides higher than in the previous year, though slightly below the 2019 year-end forecast.

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 year ended December 31, 2019 was $447.9 compared to $447.9 at December 31, 2018.

Capital Programs

At December 31, 2019, $277 had been committed and $7 had been expended for the 2020-2024 MTA Bridges and Tunnels Capital Program, $25,066 had been committed and $12,679 had been expended for the combined 2015-2019 MTA Capital Programs and the 2015-2019 MTA Bridges and Tunnels Capital Program, and $28,423 had been committed and $24,520 had been expended for the combined 2010-2014 MTA Capital Programs and the 2010-2014 MTA Bridges and Tunnels Capital Program, and $24,156 had been committed and $23,807 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.

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

The combined funding sources for the revised 2015–2019 MTA Capital Programs and the 2015-2019 MTA Bridges and Tunnels Capital Program, include $7,968 in MTA bonds, $2,925 in MTA Bridges and Tunnels dedicated funds, $8,640 in State of New York funding, $7,307 in Federal funds, $2,667 in City of New York funding, $2,156 in pay-as-you-go ("PAYGO") capital, $1,017 from asset sale/leases, and $592 from other sources.

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

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

In May 2017, the MTA Board approved an amendment to the 2010-2014 Capital Programs to reflect scope transfers and consolidation between the approved capital programs, and to reflect reductions to the MTA Superstorm Sandy capital projects to match current funding assumptions. This amendment, which provided $29,237 in capital expenditures for the Transit and Commuter systems, was deemed approved by the CPRB as submitted on July 31, 2017.The amended 2010-2014 MTA Bridges and Tunnels Capital Program, which provided $2,784 in capital expenditures, was not subject to CPRB approval. 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.

By December 31, 2019, the 2010-2014 MTA Capital provided $31,640 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; $5,920 relates to the expansion of existing rail networks for both the transit and commuter systems to be managed by MTA Capital Construction; $337 relates to a multi-faceted security program including MTA Police Department; $223 relates to MTA Interagency; $297 relates to MTA Bus Company initiatives; $2,022 relates to the ongoing repairs of, and replacements to, MTA Bridges and Tunnels facilities; and $7,551 relates to Superstorm Sandy recovery/mitigation capital expenditures.

The combined funding sources for the CPRB-approved 2010–2014 MTA Capital Programs and 2010–2014 MTA Bridges and Tunnels Capital Program include $11,483 in MTA Bonds, $2,026 in MTA Bridges and Tunnels dedicated funds, $7,594 in Federal Funds, $132 in MTA Bus Federal and City Match, $719 from City Capital Funds, and $1,519 from other sources. Also included is $770 in State Assistance funds added to re-establish a traditional funding partnership. The funding strategy for Superstorm Sandy repair and restoration assumes the receipt of $6,329 in insurance and federal reimbursement proceeds (including interim borrowing by MTA to cover delays in the receipt of such proceeds), $81 in pay-as-you-go capital, supplemented, to the extent necessary, by external borrowing of up to $988 in additional MTA and MTA Bridges and Tunnels bonds.

2005-2009 Capital Program — Capital programs covering the years 2005-2009 for: (1) the commuter railroad operations of the MTA conducted by MTA Long Island Rail Road and MTA Metro-North Railroad (the “2005–2009 Commuter Capital Program”), (2) the transit system operated by MTA New York City Transit and its subsidiary, MaBSTOA, the MTA Bus Company, and the rail system operated by MTA Staten Island Railway (the “2005–2009 Transit Capital Program”) were originally approved by the MTA Board in April 2005 and subsequently by the CPRB in July 2005. The capital program for the toll bridges and tunnels operated by MTA Bridges and Tunnels (the “2005–2009 MTA Bridges and Tunnels Capital Program”) was approved by the MTA Board in April 2005 and was not subject to CPRB approval. The 2005–2009 amended Commuter Capital Program and the 2005–2009 Transit Capital program (collectively, the “2005–2009 MTA Capital Programs”) were last amended by the MTA Board in July 2008. This latest 2005-2009 MTA Capital Program amendment was resubmitted to the CPRB for approval in July 2008, and was approved in August 2009.

As last amended by the MTA Board, the 2005–2009 MTA Capital Programs and the 2005–2009 MTA Bridges and Tunnels Capital Program, provided for $23,717 in capital expenditures. By December 31, 2019, 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, $11,514 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; $7,723 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 November Financial Plan

The 2019 MTA November Financial Plan (the “November Plan” or “Plan”), which includes the 2019 November Forecast, the 2020 Final Proposed Budget and a Financial Plan for the years 2020-2023, updates the July Financial Plan. Since 2010, MTA financial plans – which are developed in a disciplined, consistent, and transparent process – have included the impact of the MTA’s continuous pursuit of operational efficiencies and recurring cost reductions which are used to temper the amount of revenues needed from biennial fare and toll increases and governmental subsidies, and provide funding for the capital program and enhanced maintenance. The Plans have added service when sustainable while also addressing long-term costs such as pensions, health care, paratransit, and debt service previously considered “uncontrollable.”

The November Plan includes:

- Implementation of the Transformation Plan to streamline MTA internal processes,
- No budget-driven service cuts,
- maintenance of improvements from the Subway Action Plan, and
- projected biennial fare and toll increases that generate a four percent net increase in farebox and toll revenue.

The Plan permanently captures savings from currently vacant Administrative positions that will be eliminated and reflects the fiscal impact of actions being taken to reduce fare evasion and constrain “controllable” overtime. The Plan also assumes a renegotiation with the City of New York for a more equitable sharing of Paratransit net operating deficits.

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. For further information, refer to Note 16, Subsequent Events, to the MTA's Consolidated Financial Statements.

- The initial impact of social distancing and Governor Cuomo's PAUSE Executive Order 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 have occurred at an accelerating pace. The steep fall in both ridership and vehicle volume reflects the initial impact of social distancing and subsequent State governmental orders limiting non-essential activities caused by the COVID-19 pandemic. There remains a high risk for further reductions in ridership and traffic.
- While we cannot estimate the duration of the pandemic and the reduced use of MTA services, if the current levels are sustained for six months, and then followed by a gradual six-month return to pre-pandemic ridership and traffic levels, the full 2020 financial impact of the COVID-19 crisis to the MTA is projected to be between $7.0 and $8.5 billion.
- On May 6, 2020, effective in the early morning, the MTA began its unprecedented closure of the subway system overnight from 1 – 5 a.m. for daily deep cleaning and a new "Essential Connector" service to continue moving the essential workers on the frontlines of the COVID-19 pandemic. During this overnight period, the MTA will intensify disinfecting operations, cleaning its fleet of thousands of cars and buses every night, and further testing new and innovative cleaning solutions, including UV, antimicrobials and electrostatic disinfectants. Essential workers traveling to and from work during the overnight will be connected with for-hire-vehicles through the "Essential Connector" program at no cost to customers.

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 $5.606 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 $1.054 billion. As of December 31, 2019, MTA has drawn down a total of $2.520 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.

MTA expects to submit grant requests for the $206.3 of remaining FTA emergency relief allocation in Federal Fiscal Year 2020.

Labor Update

During the final quarter of 2019, no new labor agreements were reached with represented employees at MTA agencies, although several tentative agreements reached late in the year awaited presentation to the MTA Board and would be proposed for MTA Board approval early in the new year. With several labor agreements having expired or having become amendable in the fourth quarter, the MTA continued the process of collective bargaining towards new terms for a majority of its unionized employees. The following describes in greater detail the status of MTA's labor relations bargaining activity through December 31, 2019.

MTA Long Island Rail Road – At the end of the final quarter of 2019, MTA Long Island Rail Road had approximately 7,541 employees. Approximately 6,543 of the railroad's employees were represented by 12 different unions in 19 bargaining units. MTA Long Island Rail Road, having reached agreement with all its unions for the period from December 16, 2016 through April 16, 2019, is in position to begin a new round of collective bargaining. Meanwhile, under the Railway Labor Act, MTA Long Island Rail Road's represented population is covered by the amendable agreements.

MTA Metro-North Railroad – By the end of the fourth quarter of 2019, only two bargaining groups at MTA Metro-North Railroad, both divisions of the Association of Commuter Rail Employees ("ACRE"), remained without new agreement terms covering the 2017-2019 period. While the approximately 440 Engineers, represented by ACRE Division 9, had reached a tentative agreement with the MTA Metro-North Railroad late in the year, the new terms had not been slated for MTA Board presentation until January of 2020. Additionally, approximately 284 Signalmen, represented by ACRE Division 166, remained without new agreement terms for the 2017-2019 round of collective bargaining. All other represented employees of the MTA Metro-North Railroad had earlier reached labor agreements for that round and, by December, all those agreements had already become amendable under the Railway Labor Act. Effectively, this means that all of the unions representing approximately 5,603 union members at MTA Metro-North Railroad will be seeking to amend terms of labor agreements in 2020.

MTA Headquarters – Labor agreements with approximately 756 MTA Police members of the Police Benevolent Association ("PBA") and approximately 24 members of the Commanding Officers Association ("COA") expired in October 2018, and negotiations to establish new terms with these MTA Police unions, covering nearly half of MTA Headquarters' represented population, continued throughout the fourth quarter of 2019. At the same time, agreements with the other unions that represent approximately 921 employees working at MTA Headquarters remained in effect, although the agreement with approximately 378 IT employees represented by the Transportation Communications Union ("TCU Local 983") expired on December 31, 2019.

MTA New York City Transit Authority/Manhattan and Bronx Surface Transit Operating Authority – In May 2019, the labor agreement between MTA New York City Transit and its largest union, the Transport Workers Union Local 100 ("TWU Local 100"), expired. In the fourth quarter of 2019, after months of negotiations, a new tentative agreement was reached, covering approximately 37,295 TWU Local 100 employees of MTA New York City Transit, MaBSTOA and MTA Bus Company; however, it was not presented to the MTA Board nor officially approved for implementation until January 2020.

MTA Bus Company – At the end of the fourth quarter of 2019, MTA Bus Company had 4,096 employees (full and part time), approximately 3,860 of whom are represented by three different unions (five bargaining units). The largest of these is TWU Local 100, whose members sat with their counterparts at MTA New York City Transit and MaBSTOA in the 2017-2019 round of collective bargaining and were co-parties to that agreement. As mentioned above, the agreement with TWU Local 100, including MTA Bus Company employees, expired in May 2019. Once again, as negotiations towards a new agreement got underway, the MTA Bus Company employees decided to collectively bargain with the operational employees at MTA New York City Transit. A tentative agreement was finally reached in the final quarter, which included approximately 2,313 MTA Bus Company employees. However, it was not presented to the MTA Board nor officially approved for implementation until January 2020. By the end of the fourth quarter, with the expiration of two of MTA Bus Company's other large unions—ATU Local 1179 and ATU Local 1181— and the earlier expiration of MTA Bus Company's agreement with TWU Local 106, all of MTA Bus Company's 3,860 represented employees (including those of TWU Local 100, whose agreement awaited Board approval) had expired labor agreements.

MTA Bridges and Tunnels – As of December 31, 2019, MTA Bridges and Tunnels had 1,296 employees, approximately 884 of whom were represented by three different labor unions (four bargaining units). In the fourth quarter, approximately 339 Maintainers, members of DC 37 Local 1931, remained under an effective labor agreement, which will expire in July 2020. The recent Memorandum of Understanding between the agency and the Bridge and Tunnel Officers Benevolent Association ("BTOBA"), having been passed by the MTA Board in June, expired in September. That agreement had covered the 88-month period beginning on May 18, 2012. By the end of December, MTA Bridges and Tunnels negotiations with DC 37 Local 1655 had produced a tentative agreement, which would not be presented to the MTA Board, nor approved for implementation, until January 2020. Finally, 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.

MTA Staten Island Railway – During the last quarter of 2019, MTA Staten Island Railway had 357 employees, approximately 328 of whom were represented by four different unions. In the fourth 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 STATEMENTS OF NET POSITION

AS OF DECEMBER 31, 2019 AND 2018

($ in millions)

	Business-Type Activities	
	December 31, 2019	**December 31, 2018**
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
CURRENT ASSETS:		
Cash (Note 3)	$ 554	$ 541
Unrestricted investments (Note 3)	3,304	2,915
Restricted investments (Note 3)	2,167	1,487
Restricted investments held under capital lease obligations (Notes 3 and 8)	107	4
Receivables:		
Station maintenance, operation, and use assessments	118	119
State and regional mass transit taxes	142	108
Mortgage Recording Tax receivable	49	43
State and local operating assistance	46	11
Other receivable from New York City and New York State	228	289
Due from Build America Bonds	1	1
Capital project receivable from federal and state government	25	143
Other	449	463
Less allowance for doubtful accounts	(200)	(128)
Total receivables — net	858	1,049
Materials and supplies	658	624
Prepaid expenses and other current assets (Note 2)	155	145
Total current assets	7,803	6,765
NON-CURRENT ASSETS:		
Capital assets (Notes 6):		
Land and construction work-in-progress	20,288	18,269
Other capital assets (net of accumulated depreciation)	57,121	54,242
Unrestricted investments (Note 3)	66	46
Restricted investments (Note 3)	641	546
Restricted investments held under capital lease obligations (Notes 3 and 8)	289	382
Other non-current receivables	31	58
Receivable from New York State	10	10
Other non-current assets	16	20
Total non-current assets	78,462	73,573
TOTAL ASSETS	86,265	80,338
DEFERRED OUTFLOWS OF RESOURCES:		
Accumulated decreases in fair value of derivative instruments (Note 7)	419	329
Loss on debt refunding (Notes 7)	1,001	1,138
Deferred outflows related to pensions (Note 4)	2,343	1,397
Deferred outflows related to OPEB (Note 5)	1,537	1,496
TOTAL DEFERRED OUTFLOWS OF RESOURCES	5,300	4,360
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	$ 91,565	$ 84,698

See notes to the consolidated financial statements. (Continued)

(A Component Unit of the State of New York)

CONSOLIDATED STATEMENTS OF NET POSITION

AS OF DECEMBER 31, 2019 AND 2018

($ in millions)

	Business-Type Activities	
	December 31, 2019	**December 31, 2018**
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION		
CURRENT LIABILITIES:		
Accounts payable	$ 443	$ 470
Accrued expenses:		
Interest	287	210
Salaries, wages and payroll taxes	350	327
Vacation and sick pay benefits	1,040	1,020
Current portion — retirement and death benefits	15	16
Current portion — estimated liability from injuries to persons (Notes 10)	501	454
Capital accruals	785	737
Unearned premiums	202	264
Other	777	693
Total accrued expenses	3,957	3,721
Current portion — loan payable (Note 7)	16	15
Current portion — long-term debt (Note 7)	4,573	2,552
Current portion — obligations under capital lease (Note 8)	14	4
Current portion — pollution remediation projects (Note 12)	31	31
Derivative fuel hedge liability (Note 14)	1	12
Unearned revenues	723	804
Total current liabilities	9,758	7,609
NON-CURRENT LIABILITIES:		
Net pension liability (Note 4)	7,584	6,487
Estimated liability arising from injuries to persons (Notes 10)	4,086	3,800
Net OPEB liability (Note 5)	19,582	20,335
Loan payable (Note 7)	108	104
Long-term debt (Notes 7)	41,572	39,617
Obligations under capital leases (Notes 8)	438	443
Pollution remediation projects (Note 12)	120	108
Contract retainage payable	435	406
Derivative liabilities (Note 7)	430	346
Other long-term liabilities	372	376
Total non-current liabilities	74,727	72,022
TOTAL LIABILITIES	84,485	79,631
DEFERRED INFLOWS OF RESOURCES:		
Gain on debt refunding	20	23
Deferred inflows related to pensions (Note 4)	934	1,070
Deferred inflows related to OPEB (Note 5)	1,675	21
TOTAL DEFERRED INFLOWS OF RESOURCES	2,629	1,114
NET POSITION:		
Net investment in capital assets	31,271	30,000
Restricted for debt service	554	454
Restricted for claims	219	206
Restricted for other purposes (Note 2)	1,064	1,230
Unrestricted	(28,657)	(27,937)
TOTAL NET POSITION	4,451	3,953
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	$ 91,565	$ 84,698

See notes to the consolidated financial statements. (Concluded)

(A Component Unit of the State of New York)

CONSOLIDATED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2019 AND 2018

($ in millions)

	Business-Type Activities	
	December 31, 2019	**December 31, 2018**
OPERATING REVENUES:		
Fare revenue	$ 6,351	$ 6,155
Vehicle toll revenue	2,071	1,976
Rents, freight, and other revenue	621	605
Total operating revenues	9,043	8,736
OPERATING EXPENSES:		
Salaries and wages	6,310	6,300
Retirement and other employee benefits	3,125	2,447
Postemployment benefits other than pensions (Note 5)	1,613	1,749
Electric power	444	482
Fuel	174	185
Insurance	1	(29)
Claims	494	437
Paratransit service contracts	477	455
Maintenance and other operating contracts	686	633
Professional service contracts	437	545
Pollution remediation projects (Note 12)	42	106
Materials and supplies	647	637
Depreciation (Note 2)	2,870	2,679
Other	222	215
Total operating expenses	17,542	16,841
Net expenses related to asset impairment	1	-
OPERATING LOSS	(8,500)	(8,105)
NON-OPERATING REVENUES (EXPENSES):		
Grants, appropriations and taxes:		
Tax-supported subsidies — NYS:		
Mass Transportation Trust Fund subsidies	649	633
Metropolitan Mass Transportation Operating Assistance subsidies	1,824	1,687
Payroll Mobility Tax subsidies	1,820	1,669
MTA Aid Trust Account subsidies	313	296
Internet sales tax subsidies	85	-
Tax-supported subsidies — NYC and Local:		
Mortgage Recording Tax subsidies	468	447
Urban Tax subsidies	641	700
Mansion Tax	74	-
Other subsidies:		
New York State Service Contract subsidy	-	1
Operating Assistance - 18-B program	429	376
Build America Bond subsidy	89	90
NYS/NYC Subway Action Plan	-	508
Assistance Fund	375	-
Total grants, appropriations and taxes	$ 6,767	$ 6,407

See notes to the consolidated financial statements.

(Continued)

(A Component Unit of the State of New York)

CONSOLIDATED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2019 AND 2018

($ In millions)

	Business-Type Activities	
	December 31, 2019	**December 31, 2018**
NON-OPERATING REVENUES (EXPENSES):		
Connecticut Department of Transportation	$ 136	$ 134
Subsidies paid to Dutchess, Orange, and Rockland Counties	(10)	(9)
Interest on long-term debt (Note 2)	(1,557)	(1,460)
Station maintenance, operation and use assessments	171	168
Operating subsidies recoverable from NYC	564	560
Loss on disposal of subway cars	-	(125)
Other net non-operating expenses	(371)	(22)
Net non-operating revenues	5,700	5,653
LOSS BEFORE APPROPRIATIONS, GRANTS AND OTHER RECEIPTS EXTERNALLY RESTRICTED FOR CAPITAL PROJECTS	(2,800)	(2,452)
APPROPRIATIONS, GRANTS AND OTHER RECEIPTS EXTERNALLY RESTRICTED FOR CAPITAL PROJECTS	3,298	2,302
CHANGE IN NET POSITION	498	(150)
NET POSITION— Beginning of year	3,953	5,224
Restatement of beginning net position - adoption of GASB No. 75	-	(1,121)
NET POSITION — End of year	$ 4,451	$ 3,953

See notes to the consolidated financial statements.

(Concluded)

(A Component Unit of the State of New York)

CONSOLIDATED STATEMENTS OF CASH FLOWS

YEARS ENDED DECEMBER 31, 2019 AND 2018

($ In millions)

	Business-Type Activities	
	December 31, 2019	**December 31, 2018**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Passenger receipts/tolls	$ 8,471	$ 8,161
Rents and other receipts	845	790
Payroll and related fringe benefits	(10,142)	(9,609)
Other operating expenses	(3,523)	(3,626)
Net cash used by operating activities	(4,349)	(4,284)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Grants, appropriations, and taxes	7,325	6,937
Operating subsidies from CDOT	129	122
Subsidies paid to Dutchess, Orange, and Rockland Counties	(9)	(9)
Net cash provided by noncapital financing activities	7,445	7,050
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
MTA bond proceeds	2,085	1,528
MTA Bridges and Tunnels bond proceeds	502	1,443
MTA bonds refunded/reissued	(803)	(1,058)
MTA Bridges and Tunnels bonds refunded/reissued	(100)	(648)
MTA anticipation notes proceeds	5,340	3,191
MTA anticipation notes redeemed	(1,500)	(512)
MTA credit facility proceeds	366	4
MTA credit facility refunded	(365)	-
Grants and appropriations	1,508	2,171
Grants and appropriations	664	2,171
Payment for capital assets	(6,791)	(6,454)
Debt service payments	(2,966)	(2,999)
Net cash used by capital and related financing activities	(2,060)	(1,163)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of long-term securities	(4,071)	(6,135)
Sales or maturities of long-term securities	3,309	6,283
Net (purchases) sales or maturities of short-term securities	(387)	567
Earnings on investments	126	111
Net cash (used by) / provided by investing activities	(1,023)	826
NET INCREASE IN CASH	13	258
CASH — Beginning of year	541	283
CASH — End of year	$ 554	$ 541

See notes to the consolidated financial statements.

(Continued)

(A Component Unit of the State of New York)

CONSOLIDATED STATEMENTS OF CASH FLOWS

YEARS ENDED DECEMBER 31, 2019 AND 2018

($ In millions)

	Business-Type Activities	
	December 31, 2019	**December 31, 2018**
RECONCILIATION OF OPERATING LOSS TO NET CASH USED BY OPERATING ACTIVITIES:		
Operating loss (Note 2)	$ (8,500)	$ (8,105)
Adjustments to reconcile to net cash used in operating activities:		
Depreciation and amortization	2,870	2,679
Net increase in payables, accrued expenses, and other liabilities	617	956
Net increase in deferred outflows related to pensions	(645)	647
Net increase in deferred outflows related to OPEB	(16)	(1,496)
Net increase (decrease) in deferred inflows related to pensions	19	590
Net increase (decrease) in deferred inflows related to OPEB	1,097	21
Net increase in net pension liability and related accounts	611	(1,618)
Net increase in net OPEB liability and related accounts	(473)	3,603
Net decrease in receivables	261	(188)
Net decrease in materials and supplies and prepaid expenses	(190)	(1,373)
NET CASH USED BY OPERATING ACTIVITIES	$ (4,349)	$ (4,284)
NONCASH INVESTING, CAPITAL AND RELATED FINANCING ACTIVITIES:		
Noncash investing activities:		
Interest expense includes amortization of net (premium) / discount (Note 2)	$ 60	$ 24
Interest expense which was capitalized	44	49
Total Noncash investing activities	104	73
Noncash capital and related financing activities:		
Capital assets related liabilities	785	677
Capital leases related liabilities	452	447
Total Noncash capital and related financing activities	1,237	1,124
TOTAL NONCASH INVESTING, CAPITAL AND RELATED FINANCING ACTIVITIES	$ 1,341	$ 1,197

See notes to the consolidated 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	$ 14,499	$ 21,685
Receivables:		
Employee loans	208,406	196,266
Participant and union contributions	21	-
Investment securities sold	1,140	730
Accrued interest and dividends	4,866	4,606
Other receivables	2,182	1,937
Total receivables	216,615	203,539
Investments at fair value:		
Investments measured at readily determined fair value	1,692,906	1,368,589
Investments measured at net asset value	10,485,189	8,915,496
Investments at contract value	1,435,218	1,313,496
Total investments	13,613,313	11,597,581
Total assets	$ 13,844,427	$ 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 liabiliities	585	341
Total liabilities	23,664	24,595
NET POSITION:		
Restricted for pensions	8,915,962	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	13,820,763	11,798,210
Total liabilities and net position	$ 13,844,427	$ 11,822,805

See notes to the consolidated 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	$ 1,278,817	$ 1,224,930
Implicit rate subsidy contribution	69,618	74,484
Participant rollovers	23,941	21,673
Member contributions	353,490	336,008
Total contributions	1,725,866	1,657,095
Investment income:		
Net appreciation / (depreciation) in fair value of investments	1,811,423	(464,140)
Dividend income	93,262	110,573
Interest income	25,626	19,021
Less:		
Investment expenses	50,970	92,896
Investment income, net	1,879,341	(427,442)
Other additions:		
Loan repayments - interest	8,979	7,529
Total additions	3,614,186	1,237,182
DEDUCTIONS:		
Benefit payments and withdrawals	1,303,892	1,232,179
Implicit rate subsidy payments	69,618	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	1,591,633	1,498,144
Net increase / (decrease) in fiduciary net position	2,022,553	(260,962)
NET POSITION:		
Restricted for Benefits:		
Beginning of year	11,798,210	12,059,172
End of year	$ 13,820,763	$ 11,798,210

See notes to the consolidated financial statements.

(A Component Unit of the State of New York)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018

($ In millions, except as noted)

1. BASIS OF PRESENTATION

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

These consolidated 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 year ended December 31, 2019 and 2018 totaled $6.8 billion and $6.4 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.

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

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

2. SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting — The accompanying consolidated 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 year ended December 31, 2019:

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

GASB Statement No. 84, *Fiduciary Activities*, improves guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The requirements of GASB Statement No. 84 are effective for reporting periods beginning after December 15, 2018. In adopting this Statement, MTA evaluated which Pension Funds and Other Employee Benefit Trust Funds met the criteria as a fiduciary component unit. The MTA adopted this statement effective January 1, 2018. The financial information of those fiduciary funds are included within the fiduciary fund financial statements and supplementary information presented within these financial statements.

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

GASB Statement No. 90, *Majority Equity Interest- an Amendment of GASB Statements No. 14 and No. 61*, improves consistency in the measurement and comparability of the financial statement presentation of majority equity interests in legally separate organizations and improves the relevance of financial statement information for certain component units. The Statement defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. The Statement also establishes that ownership of a majority equity interest in a legally separate organization results in the government being financially accountable for the legally separate organization and, therefore, the government should report that organization as a component unit. In addition, the Statement also requires that a component unit in which a government has a 100 percent equity interest account for its assets, deferred outflows of resources, liabilities and deferred inflows of resources at acquisition value. GASB Statement No. 90 is effective for reporting periods beginning after December 15, 2018. The adoption of this Statement did not have a material impact to the MTA's financial statements.

GASB Statement No. 95, *Postponement of the Effective Dates of Certain Authoritative Guidance*, provides temporary relief to government and other stakeholders in light of the COVID-19 pandemic. This objective is accomplished by postponing the effective dates of certain accounting and financial reporting provisions in Statements and Implementation Guides that first became effective or are scheduled to become effective for periods beginning after June 15, 2018 and later. GASB Statement No. 95 is effective immediately. The adoption of this Statement did not have a material impact to the MTA's financial statements. However, the MTA did update the required year of adoption for GASB Statements No. 87, 89, 91, 92 and 93. Refer to Accounting Standards Issued but Not Yet Adopted for further details.

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
89	*Accounting for Interest Cost Incurred Before the End of a Construction Period*	2021
91	*Conduit Debt Obligations 2021*	2022
92	*Omnibus 2020*	2022
93	*Replacement of Interbank Oferred Rates*	2022
94	*Public-Private and Public-Public Partnerships and Availability Payment Arrangements*	2023

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

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

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

Investments expected to be utilized within a year of December 31st have been classified as current assets in the consolidated 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 December 31, 2019 and 2018.

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 December 31, 2019 and 2018 of $184 and $171, respectively.

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

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

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

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

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

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

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

Non-operating Revenues

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

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

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

Mobility Tax — In June of 2009, Chapter 25 of the NYS Laws of 2009 added Article 23, which establishes the Metropolitan Commuter Transportation Mobility Tax ("MCTMT"). The proceeds of this tax, administered by the New York State Tax Department, are to be distributed to the Metropolitan Transportation Authority. This tax is imposed on certain employers and self-employed individuals engaging in business within the metropolitan commuter transportation district which includes New York City, and the counties of Rockland, Nassau, Suffolk, Orange, Putnam, Dutchess, and Westchester. This Tax is imposed on certain employers that have payroll expenses within the Metropolitan Commuter Transportation District, to pay at a rate of 0.34% of an employer's payroll expenses for all covered employees for each calendar quarter. The employer is prohibited from deducting from wages or compensation of an employee any amount that represents all or any portion of the MCTMT. The effective date of this tax was March 1, 2009 for employers other than public school district; September 1, 2009 for Public school districts and January 1, 2009 for individuals.

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

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

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

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

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

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

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

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

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

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

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, The City ceased reimbursing the Authority for the full costs of the free/reduced fare program for students. Beginning in 1996, the State and The City each began paying $45 per annum to the Authority 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 The City's annual commitment remained at $45. These commitments have been met by both the State and The City for both 2018 and 2019. For the year ended December 31, 2019, the Authority received $115.3 from the State and City combined, which includes $15.0 due from The City for the year 2018 and $30.0 prepaid for the year 2020.

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 $4.1 and $3.6 for the years ended December 31, 2019 and 2018, respectively, 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 years ended December 31, 2019 and 2018 were $23.0 and $22.7, respectively. The amounts recovered for the years ended December 31, 2019 and 2018 were approximately $15.0 and $14.8, 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 reimbursement aggregated approximately $236.8 in the year ended December 31, 2019, and $217.3 in the year ended December 31, 2018. Total paratransit expenses, including paratransit service contracts, were $596.0 and $537.1 in 2019 and 2018, respectively.

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 December 31, 2019, the balance of the assets in this program was $164.1.

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

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

On March 1, 2019, the "Access-A-Ride" automobile liability policy program was renewed. This program provides third-party auto liability insurance protection for the MTA New York City Transit's Access-A-Ride program, including the contracted operators. This policy provides a $2 per occurrence limit with an excess of a $1 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, 2019, FMTAC renewed the all-agency property insurance program. For the annual period commencing May 1, 2019, FMTAC directly insures property damage claims of the Related Entities in excess of a $25 per occurrence deductible, subject to an annual $75 aggregate deductible. The total All Risk program annual limit is $575 per occurrence and in the annual aggregate for Flood and Earthquake covering property of the Related Entities collectively. FMTAC is reinsured in the domestic, Asian, London, European and Bermuda reinsurance markets for this coverage. Losses occurring after exhaustion of the deductible aggregate are subject to a deductible of $7.5 per occurrence. The property insurance policy provides replacement cost coverage for all risks (including Earthquake, Flood and Wind) of direct physical loss or damage to all real and personal property, with minor exceptions. The policy also provides extra expense and business interruption coverage.

Supplementing the $575 per occurrence noted above, FMTAC's property insurance program has been expanded to include a further layer of $125 of fully collateralized earthquake coverage for an event of a certain index value and for storm surge coverage for losses from storm surges that surpass specified trigger levels in the New York Harbor or Long Island Sound and are associated with named storms that occur at any point in the three year period from May 23, 2017 to April 30, 2020. The expanded protection is reinsured by MetroCat Re Ltd. 2017-1, a Bermuda special purpose insurer independent from the MTA and formed to provide FMTAC with capital markets based property reinsurance. The MetroCat Re Ltd. 2017-1 reinsurance policy is fully collateralized by a Regulation 114 trust invested in U.S. Treasury Money Market Funds. The additional coverage provided is parametric and available for storm surge losses resulting from a storm that causes water levels that reach the specified index values, and also for an earthquake event of a certain index value.

With respect to acts of terrorism, FMTAC provides direct coverage that is reinsured by the United States Government for 81% of "certified" losses in 2019 and 80% of "certified" losses in 2020, as covered by the Terrorism Risk Insurance Program Reauthorization Act ("TRIPRA") of 2015. The remaining 19% (2019) and 20% (2020) of the Related Entities' losses arising from an act of terrorism would be covered under the additional terrorism policy described below. No federal compensation will be paid unless the aggregate industry insured losses exceed a trigger of $180 in 2019 and $200 in 2020. In December 2019, the United States government's reinsurance was extended until 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) 19% of any "certified" act of terrorism up to a maximum recovery of $204.3 for any one occurrence and in the annual aggregate during 2019 and 20% of any "certified" act of terrorism up to a maximum recovery of $215 for any one occurrence and in the annual aggregate during 2020 (2) the TRIPRA FMTAC captive deductible (per occurrence and on an aggregated basis) that applies when recovering under the "certified" acts of terrorism insurance or (3) 100% of any "certified" terrorism loss which exceeds $5 and less than the $180 TRIPRA trigger up to a maximum recovery of $180 for any occurrence and in the annual aggregate during 2019 or 100% of any "certified" terrorism loss which exceeds $5 and less than the $200 TRIPRA trigger up to a maximum recovery of $200 for any occurrence and in the annual aggregate during 2020.

Additionally, MTA purchases coverage for acts of terrorism which are not certified under TRIPRA to a maximum of $204.3 in 2019 and $215 in 2020. Recovery under the terrorism policy is subject to a deductible of $25 per occurrence and $75 in the annual aggregate in the event of multiple losses during the policy year. Should the Related Entities' deductible in any one year exceed $75 future losses in that policy year are subject to a deductible of $7.5. The terrorism coverages expire at midnight on December 31, 2020.

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

Postemployment Benefits Other Than Pensions — In 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. Cash, including deposits in transit, consists of the following at December 31, 2019 and 2018 (in millions):

	2019		2018	
	Carrying Amount	Bank Balance	Carrying Amount	Bank Balance
FDIC insured or collateralized deposits	$ 105	$ 104	$ 75	$ 62
Uninsured and not collateralized	449	405	466	406
Total Balance	$ 554	$ 509	$ 541	$ 468

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 December 31, 2019 and 2018 (in millions):

	December 31,	Fair Value Measurements		December 31,	Fair Value Measurements	
Investments by fair value level	**2019**	**Level 1**	**Level 2**	**2018**	**Level 1**	**Level 2**
Debt Securities:						
U.S. treasury securities	$ 5,105	$ 4,753	$ 352	$ 3,325	$ 2,984	$ 341
U.S. government agency	359	-	359	387	261	126
Commercial paper	175	-	175	758	-	758
Asset-backed securities	46	-	46	45	-	45
Commercial mortgage-backed securities	110	-	110	81	-	81
Foreign bonds	19	19	-	16	16	-
Corporate bonds	138	138	-	133	133	-
U.S. treasury securities	189	189	-	178	178	-
U.S. government agency	128	69	59	112	-	112
Repurchase agreements	182	182	-	223	223	-
Total investments by fair value level	6,451	$ 5,350	$ 1,101	5,258	$ 3,795	$ 1,463
Other	123			122		
Total Investments	$ 6,574			$ 5,380		

Investments classified as Level 1 of the fair value hierarchy, totaling $5,350 and $3,795 as of December 31, 2019 and 2018, respectively, are valued using quoted prices in active markets. Fair values include accrued interest to the extent that interest is included in the carrying amounts. Accrued interest on investments other than Treasury bills and coupons is included in other receivables on the statement of net position. The MTA's investment policy states that securities underlying repurchase agreements must have a fair value at least equal to the cost of the investment.

U.S. Government agency securities totaling $418 and $238, U.S. treasury securities totaling $352 and $341, commercial paper totaling $175 and $758, asset-backed securities totaling $46 and $45, and commercial mortgage-backed securities totaling $110 and $81, as of December 31, 2019 and 2018, respectively, classified in Level 2 of the fair value hierarchy, are valued using matrix pricing techniques maintained by a third party pricing service. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices and indices. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from a third party pricing service or our custodian bank.

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

All investments, other than the investments restricted for capital lease obligations, are either insured or registered and held by the MTA or its agent in the MTA's name. Investments restricted for capital lease obligations are either held by MTA or its agent in the MTA's name or held by a custodian as collateral for MTA's obligation to make rent payments under capital lease obligations. Investments had weighted average yields of 1.62% and 2.36% for the years ended December 31, 2019 and 2018, respectively.

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

Quality Rating Standard & Poor's	December 31, 2019	Percent of Portfolio	December 31, 2018	Percent of Portfolio
A-1+	$ 235	4%	$ 283	5%
A-1	175	3%	758	14%
AAA	256	4%	217	4%
AA+	59	1%	52	1%
AA	33	1%	31	1%
A	88	1%	76	1%
BBB	41	1%	38	1%
Not rated	202	3%	240	5%
U.S. Government	5,362	82%	3,563	68%
Total	6,451	100%	5,258	100%
Equities and capital leases	123		122	
Total investment	$ 6,574		$ 5,380	

Interest Rate Risk — Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of the investment. While the MTA does not have a formal policy for interest rate risk, New York State statutes govern the MTA's investment policy. 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 a bond price's sensitivity to a 100 basis point change in interest rates.

	December 31, 2019		December 31, 2018	
(In millions)	Fair Value	Duration (in years)	Fair Value	Duration (in years)
U.S. Treasuries	$ 5,105	4.36	$ 3,325	3.00
Federal Agencies	359	5.98	387	5.91
Tax benefits lease investments	317	7.37	290	8.06
Repurchase agreement	182	-	223	-
Commercial paper	175	-	758	-
Asset-backed securities [(1)]	46	1.95	45	1.94
Commercial mortgage-backed securities [(1)]	110	3.85	81	5.55
Foreign bonds [(1)]	19	6.25	16	6.20
Corporates [(1)]	138	4.56	133	4.43
Total fair value	6,451		5,258	
Modified duration		4.34		3.01
Investments with no duration reported	123		122	
Total investments	$ 6,574		$ 5,380	

[(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.

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

i. Public Authorities Law Sections 1265(4) (MTA), 1204(19) (MTA New York City Transit Authority) and 553(21) (MTA Bridges and Tunnels);

ii. Public Authorities Law Section 2925 Investment of funds by public authorities and public benefit corporations; general provisions; and

iii. State Finance Law Article 15 – EXCELSIOR LINKED DEPOSIT ACT.

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

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

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

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

- certain equities; and
- certain mutual funds.

FMTAC is prohibited from making the following investments:

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

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

4. EMPLOYEE BENEFITS

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

Plan Descriptions

1. Additional Plan —

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

The Board of Managers of Pensions is 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, 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 a 12 months of pay for members with more than 10 but less than 20 years of service, and a lump sum equal to two times 12 months of pay for members with more than 20 years of service.

Tier 2 —

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

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

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

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

Tiers 3, 4—

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

Tier 3 and 4 members in the basic 55/25Plan 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 Capital Construction and MTA Long Island Bus are required to contribute at an actuarially determined rate.

A summary of the aggregate actual contributions made to each pension plan for the years ended December 31, 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 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%**

Asset Class	NYCERS Target Asset Allocation	NYCERS Long - Term Expected Real Rate of Return	NYSLERS Target Asset Allocation	NYSLERS 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:

Year ended December 31, Pension Plan	2019 Plan Measurement Date	2019 Rate	2018 Plan Measurement Date	2018 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%

(Discount Rate)

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, 2018**			**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 years ended years ended December 31, 2019 and 2018, the MTA recognized pension expense related to each pension plan as follows (in $ thousands):

	December 31,	
Pension Plan	**2019**	**2018**
Additional Plan	$ 57,499	$ 47,936
MaBSTOA Plan	160,176	116,967
MNR Cash Balance plan	(3)	16
MTA Defined Benefit Plan	391,556	316,900
NYCERS	926,721	510,157
NYSLERS	17,569	13,885
Total	**$ 1,553,518**	**$ 1,005,861**

For the years ended years ended December 31, 2019 and 2018, the MTA reported deferred outflow of resources and deferred inflow of resources for each pension plan as follows (in $ thousands):

For the Year Ended December 31, 2019	**Additional Plan**		**MaBSTOA Plan**		**MNR Cash Balance Plan**		**MTA Defined Benefit Plan**	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ -	$ 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**		**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	478,069	-	14,851	-	1,105,954	-
Total	$ 1,023,692	$ 806,785	$ 29,649	$ 7,924	$ 2,343,179	$ 934,404

For the Year Ended December 31, 2018	Additional Plan		MaBSTOA Plan		MNR Cash Balance Plan		MTA Defined Benefit Plan	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ -	$ 19,549	$ 36,673	$ -	$ -	$ 141,294	$ 23,748
Changes in assumptions	-	-	5,370	-	-	-	9,406	46,880
Net difference between projected and actual earnings on pension plan investments	-	22,499	-	83,734	16	2	-	112,897
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	-	-	-	-	50,989	50,989
Employer contributions to the plan subsequent to the measurement of net pension liability	59,500	-	205,433	-	5	-	339,800	-
Total	$ 59,500	$ 22,499	$ 230,352	$ 120,407	$ 21	$ 2	$ 541,489	$ 234,514

For the Year Ended December 31, 2018	NYCERS		NYSLERS		TOTAL	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 403,424	$ 3,763	$ 3,110	$ 164,606	$ 466,955
Changes in assumptions	63,653	-	6,998	-	85,427	46,880
Net difference between projected and actual earnings on pension plan investments	-	234,268	-	14,927	15	468,327
Changes in proportion and differences between contributions and proportionate share of contributions	46,817	36,998	3,363	66	101,169	88,053
Employer contributions to the plan subsequent to the measurement of net pension liability	426,474	-	14,501	-	1,045,713	-
Total	$ 536,944	$ 674,690	$ 28,625	$ 18,103	$ 1,396,930	$ 1,070,215

The annual differences between the projected and actual earnings on investments are amortized over a five-year closed period beginning the year in which the difference occurs.

The following table presents the recognition periods used by each pension plan to amortize the annual differences between expected and actual experience, changes in proportion and differences between employer contributions and proportionate share of contributions, and changes in actuarial assumptions, beginning the year in which the deferred amount occurs.

	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 years ended December 31, 2019 and 2018, $1,106.0 and $1,045.7 were reported as deferred outflows of resources related to pensions resulting from the MTA's contributions subsequent to the measurement date which will be recognized as a reduction of the net pension liability in the year ending December 31, 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:

	Additional Plan	**MaBSTOA Plan**	**MNR Cash Balance plan**	**MTA Defined Benefit Plan**	**NYCERS**	**NYSLERS**	**Total**
				(in thousands)			
Year Ending December 31:							
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 (in thousands)	**2018 Retirees**	**2017 Retirees**
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

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 years ended December 31, 2019 and 2018, the MTA recognized OPEB expense of $1.61 and $1.75 billion.

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

	December 31, 2019		December 31, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 9,928	$ 16,780	$ 11,767	$ -
Changes of assumptions	665,123	1,556,874	788,294	-
Net difference between projected and actual earnings on OPEB plan investments	18,564	-	-	21,101
Changes in proportion and differences between contributions and proportionate share of contributions	101,229	101,229	-	-
Employer contributions to the plan subsequent to the measurement of net OPEB liability	742,438	-	696,065	-
Total	**$ 1,537,282**	**$ 1,674,883**	**$ 1,496,126**	**$ 21,101**

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 years ended December 31, 2019 and 2018, $738.2 and $696.1 was 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 and December 31, 2019, respectively. 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:

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, 2017, December 31, 2018 and December 31, 2019 (in millions):

	Balance December 31, 2017	Additions / Reclassifications	Deletions / Reclassifications	Balance December 31, 2018	Additions / Reclassifications	Deletions / Reclassifications	Balance December 31, 2019
Capital assets not being depreciated:							
Land	$ 217	$ -	$ -	$ 217	$ 6	$ -	$ 223
Construction work-in-progress	16,978	7,528	6,454	18,052	8,279	6,266	20,065
Total capital assets not being depreciated	17,195	7,528	6,454	18,269	8,285	6,266	20,288
Capital assets being depreciated:							
Buildings and structures	17,716	746	5	18,457	1,103	1	19,559
Bridges and tunnels	3,604	550	-	4,154	72	-	4,226
Equipment:							
Passenger cars and locomotives	13,860	303	785	13,378	498	4	13,872
Buses	3,613	321	126	3,808	473	604	3,677
Infrastructure	23,834	2,438	14	26,258	1,491	21	27,728
Other	22,706	1,825	12	24,519	2,114	20	26,613
Total capital assets being depreciated	85,333	6,183	942	90,574	5,751	650	95,675
Less accumulated depreciation:							
Buildings and structures	6,923	495	4	7,414	530	-	7,944
Bridges and tunnels	783	23	-	806	27	-	833
Equipment:							
Passenger cars and locomotives	7,206	397	660	6,943	403	4	7,342
Buses	2,216	233	126	2,323	250	604	1,969
Infrastructure	9,286	803	17	10,072	862	21	10,913
Other	8,054	728	8	8,774	798	19	9,553
Total accumulated depreciation	34,468	2,679	815	36,332	2,870	648	38,554
Total capital assets being depreciated - net	50,865	3,504	127	54,242	2,881	2	57,121
Capital assets - net	$ 68,060	$ 11,032	$ 6,581	$ 72,511	$ 11,166	$ 6,268	$ 77,409

Interest capitalized in conjunction with the construction of capital assets for the years ended December 31, 2019 and 2018 was $43.7 and $49.3, respectively.

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

For certain construction projects, the MTA holds in a trust account marketable securities pledged by third-party contractors in lieu of cash retainages. At December 31, 2019 and 2018, these securities, which are not included in these financial statements, totaled $107.8 and $81.7, respectively, and had a market value of $83.3 and $53.2, respectively.

7. LONG-TERM DEBT

(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			$ 4,573
Long-term portion		$ 39,617			$ 41,572

* 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.

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

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

On February 6, 2019, MTA issued $454 Transportation Revenue Green Bonds, Series 2019A. Proceeds from the transaction were used to pay off the existing outstanding 2017C-1 Transportation Revenue Bond Anticipation Notes in the amount of $500. The Series 2019A bonds were issued through a competitive bidding process as $191 Subseries 2019A- 1, $163 Subseries 2019A-2, and $100 Subseries 2019A-3. The Subseries 2019A-1 bonds were issued as mandatory tender bonds with an initial purchase date of November 15, 2024. The Subseries 2019A-2 and 2019A-3 bonds were issued as fixed rate tax-exempt bonds with final maturities of November 15, 2045, and November 15, 2046, respectively.

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

On May 1, 2019, MTA drew $300 on the Railroad Rehabilitation and Improvement Financing loan ("RRIF Loan") to finance the positive train control project for MTA Long Island Railroad and MTA Metro-North Railroad. The current principal amount outstanding on the Transportation Revenue Bond, Series 2015X is $441 as the first draw on the RRIF Loan (Series 2015X-1) was on September 20, 2016 in the amount of $146. MTA originally entered into a Financing Agreement with the Federal Railroad Administrator, acting on behalf of the United States Secretary of Transportation, on May 5, 2015 to establish the RRIF Loan which is not to exceed $967.

On May 14, 2019, MTA issued $177.185 Transportation Revenue Green Bonds, Series 2019B (Climate Bond Certified). Proceeds from the transaction were used to retire the existing outstanding $200 Transportation Revenue Bond Anticipation Notes, Series 2017C-2. The Series 2019B bonds were issued as fixed rate tax-exempt bonds with a final maturity of November 15, 2052.

On June 3, 2019, MTA effectuated a mandatory tender and remarketed $50 MTA Transportation Revenue Variable Rate Bonds, Subseries 2012A-2 because its current interest rate period was set to expire by its terms. The Subseries 2012A-2 bonds were remarketed as Variable Interest Rate Obligations in Weekly Mode supported by an irrevocable direct-pay Letter of Credit (LOC) issued by Bank of Montreal. The LOC will expire on June 2, 2022.

On August 14, 2019, MTA issued $422 Transportation Revenue Green Bonds, Series 2019C (Climate Bond Certified). Proceeds from the transaction were used to retire the existing outstanding MTA Transportation Revenue Bond Anticipation Notes, Series 2018A. The Series 2019C bonds were issued as fixed rate tax-exempt bonds with a final maturity of November 15, 2049.

On October 31, 2019, MTA effectuated a mandatory tender and remarketed $84.450 Transportation Revenue Variable Rate Refunding Bonds, Subseries 2012G-1 because its current interest rate period was set to expire by its terms. The Subseries 2012G-1 bonds were remarketed as Variable Interest Rate Obligations in Daily Mode supported by an irrevocable direct-pay LOC issued by Barclays Bank, PLC. The new LOC will expire on October 31, 2023.

On November 7, 2019, MTA issued $241.745 Transportation Revenue Refunding Green Bonds, Series 2019D. The Series 2019D bonds were issued as $140.320 Subseries 2019D-1 and $101.425 Subseries 2019D-2. The Subseries 2019D-1 bonds were issued as mandatory tender bonds with an initial purchase date of November 15, 2024. The Subseries 2019D-2 bonds were issued as taxable fixed rate bonds with a final maturity of November 15, 2048. Proceeds from the transaction were used to refund the following: $111.220 MTA Transportation Revenue Bonds, Subseries 2008B-4; $100.000 MTA Transportation Revenue Refunding Bonds, Series 2012D; and $50.665 MTA Transportation Revenue Refunding Bonds, Subseries 2015D-2.

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 MTAAct requires MTAHQ to periodically (at least each five years) refund its bond anticipation notes with bonds.

On February 6, 2019, MTA issued $750 MTA Transportation Revenue Bond Anticipation Notes, Series 2019A to generate new money proceeds to finance existing approved transit and commuter projects and to retire the outstanding Taxable Revenue Anticipation Note. The Series 2019A Notes were priced through a competitive method of sale. The Series 2019A Notes were issued as fixed rate tax-exempt notes with a final maturity of February 3, 2020.

On May 22, 2019, MTA issued $1,200 MTA Transportation Revenue Bond Anticipation Notes, Series 2019B to generate new money proceeds to finance existing approved transit and commuter projects. The Series 2019B Notes were priced through a competitive method of sale. The Series 2019B Notes were issued as fixed rate tax-exempt notes with a final maturity of May 15, 2022.

On July 12, 2019, MTA issued $300 MTA Transportation Revenue Bond Anticipation Notes, Series 2019C to generate new money proceeds to finance existing approved transit and commuter projects related to the State funding commitment for the 2015-2019 Capital Program. The Series 2019C Notes were issued as fixed rate tax-exempt notes with a final maturity of July 1, 2020.

On September 6, 2019, MTA issued $1,200 MTA Transportation Revenue Bond Anticipation Notes, Series 2019D to generate new money proceeds to finance existing approved transit and commuter projects, $200 which is related to the State funding commitment for the 2015-2019 Capital Program. The Series 2019D Notes were issued as fixed rate tax-exempt notes with a final maturity of September 1, 2022. The Series 2019D Notes were issued as $1,000 Subseries 2019D-1 and $200 Subseries 2019D-2.

On October 16, 2019, MTA issued $600 MTA Transportation Revenue Bond Anticipation Notes, Series 2019E to generate new money proceeds to finance existing approved transit and commuter projects related to the State funding commitment for the 2015-2019 Capital Program. The Series 2019E Notes were issued as fixed rate tax-exempt notes with a final maturity of September 1, 2020.

On December 10, 2019, MTA issued $200 MTA Transportation Revenue Bond Anticipation Notes, Series 2019F to generate new money proceeds to finance existing approved transit and commuter projects. The Series 2019F Notes were issued as fixed-rate tax-exempt notes with a final maturity of November 15, 2022.

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

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

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

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.

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

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

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

On October 31, 2019, MTA effectuated a mandatory tender and remarketed $84.855 of Dedicated Tax Fund Variable Rate Refunding Bonds, Subseries 2008A-2b and $47.740 of Dedicated Tax Fund Variable Rate Refunding Bonds, Subseries 2008B-3c because their current interest rate periods were set to expire by their terms. Both the Subseries 2008A-2b and 2008B-3c bonds will be remarketed as Variable Interest Rate Obligations in Weekly Mode, each separately supported by an irrevocable direct-pay Letter of Credit (LOC) issued by PNC Bank, National Association. The new LOCs will both expire on October 31, 2022. PNC Capital Markets LLC will serve as remarketing agent.

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

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

On May 23, 2019, MTA issued $150 Triborough Bridge and Tunnel Authority General Revenue Bonds, Series 2019A to finance bridge and tunnel capital projects. The Series 2019A bonds were issued as tax-exempt fixed rate bonds with a final maturity of November 15, 2049.

On September 30, 2019, MTA issued $102 Triborough Bridge and Tunnel Authority General Revenue Refunding Bonds, Series 2019B. The Series 2019B bonds were issued as taxable fixed rate bonds with a final maturity of November 15, 2044. Proceeds from the transaction were used to refund $101 Triborough Bridge and Tunnel Authority General Revenue Variable Rate Bonds, Series 2001B.

On December 3, 2019, MTA issued $200 Triborough Bridge and Tunnel Authority General Revenue Bonds, Series 2019C. Proceeds from the transaction will be used to finance existing approved bridge and tunnel capital projects. The Series 2019C bonds were issued as fixed rate tax-exempt bonds with a final maturity of November 15, 2048.

On December 3, 2019, MTA effectuated a mandatory tender and remarketed $46.050 Triborough Bridge and Tunnel Authority General Revenue Variable Rate Bonds, Subseries 2003B-2 because its current interest rate period expired by its terms. The Series 2003B-2 Bonds were remarketed in Term Rate Mode as Floating Rate Tender Notes with a purchase date of November 15, 2024 and with an interest rate of SIFMA plus 0.25%.

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

MTA Hudson Rail Yards Trust Obligations — The MTA Hudson Rail Yards Trust Obligations, Series 2016A ("Series 2016A Obligations") were executed and delivered on September 22, 2016 by Wells Fargo Bank National Association, as Trustee ("Trustee"), to (i) retire the outstanding Transportation Revenue Bond Anticipation Notes, Series 2016A of the MTA, which were issued to provide interim financing of approved capital program transit and commuter projects, (ii) finance approved capital program transit and commuter projects of the affiliates and subsidiaries of the MTA, (iii) fund an Interest Reserve Requirement in an amount equal to one-sixth (1/6) of the greatest amount of Interest Components (as hereinafter defined) in the current or any future year, (iv) fund a portion of the Capitalized Interest Fund requirement, and (v) finance certain costs of issuance.

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

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

Pursuant to the Interagency Financing Agreement, dated as of September 1, 2016 ("Financing Agreement"), by and among the MTA, New York City Transit Authority, Manhattan and Bronx Surface Transit Operating Authority, LIRR, Metro-North Commuter Railroad Company, and MTA Bus Company (collectively, the "Related Transportation Entities"), and the Trustee, the MTA has agreed to pay to the Trustee the MTA Financing Agreement Amount with moneys provided by the Financing Agreement Payments (which are principally the revenues within the Trust Estate) and Interest Reserve Advances. The MTA has established a deposit account with Wells Fargo Bank, National Association, as 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 $55,497 compared with issuances totaling approximately $35,396. 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 December 31, 2019 and 2018, the following amounts of MTA bonds, which have been refunded, remain valid debt instruments and are secured solely by and payable solely from their respective irrevocable trusts.

(In millions)	**December 31, 2019**	**December 31, 2018**
MTA Transit and Commuter Facilities:		
Transit Facilities Revenue Bonds	$ 148	$ 169
Commuter Facilities Revenue Bonds	150	172
Dedicated Tax Fund Bonds	22	42
MTA Bridges and Tunnels:		
General Purpose Revenue Bonds	628	674
Special Obligation Subordinate Bonds	89	102
Total	$ 1,037	$ 1,159

For the year ended December 31, 2019, MTA refunding transactions increased aggregate debt service payments by $128 and provided an economic gain of $19. During the year ended December 31, 2018, MTA refunding transactions decreased aggregate debt service payments by $105 and provided an economic gain of $110. Details of bond refunding savings for December 31, 2019 and December 31, 2018 are as follows:

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

Refunding Bonds Issued in 2018 (In millions)	**Series**	**Date issued**	**Par value Refunded**	**Debt Service Savings (Increase)**
Transportation Revenue Bonds	TRB 2018B	08/23/2018	$ 207	$ 30
MTA Bridges and Tunnels General Revenue Bonds	TBTA 2018B	08/30/2018	270	80
	TBTA 2018C	08/30/2018	159	(5)
			429	75
Total Bond Refunding Savings			$ 636	$ 105

For the year ended December 31, 2019, the accounting gain on bond refundings totaled $0. For the year ended December 31, 2018, the accounting loss on bond refundings totaled $1.

Unamortized gains and losses related to bond refundings were as follows:

(In millions)	**December 31, 2017**	**(Gain)/ loss on refunding**	**Current year amortization**	**December 31, 2018**	**(Gain)/ loss on refunding**	**Current year amortization**	**December 31, 2019**
MTA:							
Transportation Revenue Bonds	$ 728	$ (2)	$ (56)	$ 670	$ -	$ (100)	$ 570
State Service Contract Bonds	(10)	-	(2)	(12)	-	-	(12)
Dedicated Tax Fund Bonds	254	-	(16)	238	-	(16)	222
	972	(2)	(74)	896	-	(116)	780
TBTA:							
General Revenue Bonds	233	1	(25)	209	-	(17)	192
Subordinate Revenue Bonds	30	-	3	33	-	(4)	29
	263	1	(22)	242	-	(21)	221
Total	**$ 1,235**	**$ (1)**	**$ (96)**	**$ 1,138**	**$ -**	**$ (137)**	**$ 1,001**

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

	MTA		**MTA BRIDGES AND TUNNELS**		**Debt Service**	
	Principal	**Interest**	**Principal**	**Interest**	**Principal**	**Interest**
2020	$ 4,258	$ 1,415	$ 315	$ 329	$ 4,573	$ 1,744
2021	2,037	1,295	317	318	2,354	1,613
2022	3,778	1,225	328	304	4,106	1,529
2023	939	1,147	355	288	1,294	1,435
2024	976	1,007	383	270	1,359	1,277
2025-2029	5,445	4,045	2,204	1,070	7,649	5,115
2030-2034	6,390	3,081	2,072	626	8,462	3,707
2035-2039	5,379	2,046	1,275	339	6,654	2,385
2040-2044	2,738	965	870	104	3,608	1,069
2045-2049	1,682	399	586	20	2,268	419
2050-2054	878	128	13	1	891	129
2055-2059	554	16	-	-	554	16
Thereafter	-	-	-	-	-	-
	$ 35,054	$ 16,769	$ 8,718	$ 3,669	$ 43,772	$ 20,438

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

- *Transportation Revenue Refunding Bonds, Series 2002D* — 4.45% per annum taking into account the interest rate swap plus the current fixed floating rate note spread.
- *Transportation Revenue Refunding Bonds, Series 2002G* — 3.542% per annum taking into account the interest rate swap plus the current fixed floating rate note spread; and 4.00% per annum plus the current fixed floating rate note spread on the unhedged portion.
- *Transportation Revenue Bonds, Series 2005D* — 3.561% per annum taking into account the interest rate swaps.
- *Transportation Revenue Bonds, Series 2005E* — 3.561% per annum taking into account the interest rate swaps and 4.00% per annum on the unhedged portion.
- *Transportation Revenue Bonds, Series 2011B* — 3.542% per annum taking into account the interest rate swaps plus the current fixed floating rate note spread; and 4.00% per annum plus the current fixed floating rate note spread on the unhedged portion.
- *Transportation Revenue Bonds, Series 2012A* — 4.00% per annum plus the current fixed floating rate note spread.
- *Transportation Revenue Bonds, Series 2012G* — 3.563% per annum taking into account the interest rate swaps plus the current fixed floating rate note spread.
- *Transportation Revenue Bonds, Series 2014D-2* — 4.00% per annum plus the current fixed floating rate note spread.
- *Transportation Revenue Bonds, Series 2015A-2*— 4.00% per annum plus the current fixed floating rate note spread.
- *Transportation Revenue Bonds, Series 2015E* — 4.00% per annum.
- *Dedicated Tax Fund Bonds, Series 2002B* — 4.00% per annum on SubSeries 2002B-1; and 4.00% per annum plus the current fixed floating rate note spread.
- *Dedicated Tax Fund Variable Rate Refunding Bonds, Series 2008A* — 3.316% per annum taking into account the interest rate swaps plus the current fixed floating rate note spread; and 4.00% per annum plus the current fixed floating rate note spread on the unhedged portion.
- *Dedicated Tax Fund Refunding Bonds, SubSeries 2008B-3a and 2008B-3c— 4*.00% per annum plus the current fixed floating rate note spread.
- *MTA Bridges and Tunnels Subordinate Refunding Bonds, Series 2000ABCD* — 6.08% per annum taking into account the interest rate swap plus the current fixed floating rate note spread; and 4.00% per annum plus the current fixed floating rate note spread on the unhedged portion.
- *MTA Bridges and Tunnels General Revenue Refunding Bonds, Series 2001C* — 4.00% per annum.
- *MTA Bridges and Tunnels General Revenue Refunding Bonds, Series 2001B* — 4.00% per annum plus the current fixed floating rate note spread.
- *MTA Bridges and Tunnels General Revenue Refunding Bonds, Series 2002F* — 5.404% and 3.076% per annum taking into account the interest rate swaps and 4.00% per annum on portions not covered by the interest rate swaps.
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2003B* — 4.00% per annum; and 4.00% per annum plus the current fixed floating rate note spread on SubSeries 2003B-2.
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2005A* — 4.00% per annum except from November 1, 2027 through November 1, 2030, 3.076% per annum taking into account the interest rate swap.
- *MTA Bridges and Tunnels General Revenue Refunding Bonds, Series 2005B* — 3.076% per annum based on the Initial Interest Rate Swaps plus the current fixed floating rate note spread.
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2008B-2* — 4.00% per annum plus the current fixed floating rate note spread.
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2018D* — 4.00% per annum plus the current fixed floating rate note spread.
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2018E* — 4.00% per annum.

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

The debt service requirements at December 31, 2019 are as follows (in millions):

Year	Principal	Interest	Total
2020	$ 16	$ 3	$ 19
2021	15	3	18
2022	14	2	16
2023	12	2	14
2024	10	2	12
2025-2029	39	3	42
2030-2034	16	1	17
2035-2039	2	0	2
Total	$ 124	$ 16	$ 140

Current portion	$ 16
Long-term portion	108
Total NYPA Loans Payable	$ 124

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 years ended December 31, 2019 and 2018.

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

Resolution	Series	Swap	Provider (Insurer)	Type of Facility	Exp. Date
Transportation Revenue	2002G-1g	Y	TD Bank, N.A.	LOC	11/1/2021
Transportation Revenue	2005D-2	Y	Helaba	LOC	11/10/2022
Transportation Revenue	2005E-1	Y	PNC Bank, National Association	LOC	8/20/2021
Transportation Revenue	2005E-2	Y	Bank of America, N.A.	LOC	12/10/2021
Transportation Revenue	2005E-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-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 Mitsbishi	LOC	3/22/2021
Dedicated Tax Fund	2008A-1	Y	TD Bank, N.A.	LOC	6/13/2022
MTA Bridges and Tunnels General Revenue	2001C	Y	State Street	LOC	6/26/2023
MTA Bridges and Tunnels General Revenue	2002F	Y	Citibank, N.A.	LOC	10/29/2021
MTA Bridges and Tunnels General Revenue	2003B-1	N	Bank of America, N.A.	LOC	1/21/2022
MTA Bridges and Tunnels General Revenue	2005A	Y	TD Bank, N.A.	LOC	1/28/2020
MTA Bridges and Tunnels General Revenue	2005B-2	Y	Citibank, N.A.	LOC	1/23/2021
MTA Bridges and Tunnels General Revenue	2005B-3	Y	State Street	LOC	6/26/2023
MTA Bridges and Tunnels General Revenue	2005B-4c	Y	U.S. Bank National Association	LOC	5/26/2022
MTA Bridges and Tunnels General Revenue	2018E	N	Bank of America, N.A.	LOC	12/12/2022

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

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

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							
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)

Derivative Instruments - Summary Information as of December 31, 2018

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							
MTA Bridges and Tunnels Senior Revenue Bonds	2002F & 2003B-2 (Citi 2005B)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	$ 190.30	$ (24.025)
MTA Bridges and Tunnels Senior Revenue Bonds	2005B-2,3,4	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	570.900	(72.074)
MTA Bridges and Tunnels Senior Revenue Bonds	2005A (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	22.650	(2.339)
MTA Bridges and Tunnels Senior Revenue Bonds	2005C (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/5/2016	40.275	(1.326)
MTA Bridges and Tunnels Subordinate Revenue Bonds	2000ABCD	SIFMA Fixed Payer	Cash Flow	Synthetic Instrument	8/12/1998	11.150	(0.264)
MTA Dedicated Tax Fund Bonds	2008A	Libor Fixed Payer	Cash Flow	Synthetic Instrument	3/8/2005	324.670	(36.330)
MTA Transportation Revenue Bonds	2002D-2	Libor Fixed Payer	Cash Flow	Synthetic Instrument	7/11/2002	200.000	(55.474)
MTA Transportation Revenue Bonds	2005D & 2005E	Libor Fixed Payer	Cash Flow	Synthetic Instrument	9/10/2004	365.860	(53.882)
MTA Transportation Revenue Bonds	2012G	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/12/2007	356.775	(66.854)
MTA Transportation Revenue Bonds	2002G-1 (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	127.660	(7.869)
MTA Transportation Revenue Bonds	2011B (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	69.590	(12.498)
					Total	$ 2,279.830	$ (332.935)

	Changes In Fair Value		Fair Value at December 31, 2019		Notional
	Classification	Amount (in millions)	Classification	Amount (in millions)	(in millions)
Government activities					
Cash Flow hedges:					
Pay-fixed interest rate swaps	Deferred outflow of resources	$(90.324)	Debt	$(423.259)	$2,209.170

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 December 31, 2019).

Metropolitan Transportation Authority						
Related Bonds	**Notional Amount as of 12/31/19**	**Effective Date**	**Maturity Date**	**Terms**	**Counterparty and Ratings(S&P / Moody's / Fitch)**	**Fair Value as of 12/31/19**
TRB 2002D-2	$ 200.000	01/01/07	11/01/32	Pay 4.45%; receive 69% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	$ (67.381)
TRB 2005D & 2005E	262.815	11/02/05	11/01/35	Pay 3.561%; receive 67% 1M LIBOR	UBS AG (A+ / Aa3 / AA-)	(50.655)
TRB 2005E	87.605	11/02/05	11/01/35	Pay 3.561%; receive 67% 1M LIBOR	AIG Financial Products [(1)] (BBB+ / Baa1 / BBB+)	(16.885)
TRB 2012G	356.375	11/15/12	11/01/32	Pay 3.563%; receive 67% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	(86.689)
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)	(44.413)
Total	$ 1,210.795					$ (266.023)

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

MTA Bridges and Tunnels						
Related Bonds	Notional Amount as of 12/31/19	Effective Date	Maturity Date	Terms	Counterparty and Ratings (S&P / Moody's / Fitch)	Fair Value as of 12/31/19
TBTA 2002F & 2003B-2	$ 189.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	Citibank, N.A. (A+ / Aa3 / A+)	$ (32.439)
TBTA 2005B-2	189.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	(32.439)
TBTA 2005B-3	189.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	BNP Paribas North America (A+ / Aa3 / A+)	(32.439)
TBTA 2005B-4	189.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	UBS AG (A+ / Aa3 / AA-)	(32.439)
TRB 2002G-1 & 2011B TBTA 2005A & 2001C [2]	120.588 [3]	04/01/16	01/01/30	Pay 3.52%; receive 67% 1M LIBOR	U.S. Bank N.A. (AA- / A1 / AA-)	(13.740) [3]
TRB 2002G-1 & 2011B TBTA 2005A & 2001C [2]	120.587 [3]	04/01/16	01/01/30	Pay 3.52%; receive 67% 1M LIBOR	Wells Fargo Bank, N.A. (A+ / Aa2 / AA-)	(13.740) [3]
Total	$ 998.375					$ (157.236)

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 December 31, 2019, all of the valuations were in liability positions to MTA and MTA Bridges and Tunnels; accordingly, no collateral was posted by any of the counterparties.

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

Counterparty	S&P	Moody's	Fitch	Notional Amount (in thousands)	% of Total Notional Amount
JPMorgan Chase Bank, NA	A+	Aa2	AA	$745,675	33.75%
UBS AG	A+	Aa3	AA-	452,115	20.47
The Bank of New York Mellon	AA-	Aa2	AA	304,000	13.76
Citibank, N.A.	A+	Aa3	A+	189,300	8.57
BNP Paribas US Wholesale Holdings, Corp.	A+	Aa3	A+	189,300	8.57
U.S. Bank National Association	AA-	A1	AA-	120,588	5.46
Wells Fargo Bank, N.A.	A+	Aa2	AA-	120,587	5.45
AIG Financial Products Corp.	BBB+	Baa1	BBB+	87,605	3.97
Total				**$2,209,170**	**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 or SIFMA (as applicable) 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.	BelowBaa2 (Moody's) or BBB (S&P)*	Below Baa2 (Moody's) or BBB (S&P)**

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

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

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

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

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

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

As of December 31, 2019, the aggregate mid-market valuation of the MTA's swaps subject to collateral posting agreements was ($227.698); as of this date, the MTA was not subject to collateral posting based on its credit ratings (see further details below).

As of December 31, 2019, the aggregate mid-market valuation of MTA Bridges and Tunnels' swaps subject to collateral posting agreements was ($157.173); 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 highest rating)**
Bank of New York Mellon	N/A–MTA does not post collateral	Aa3/AA- & above: $10 million A1/A+: $5 million A2/A: $2 million A3/A-: $1 million Baa1/BBB+ & below: Zero

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

MTA Bridges and Tunnels Senior Lien		
Counterparty	**MTA Bridges and Tunnels Collateral Thresholds (based on highest rating)**	**Counterparty Collateral Thresholds (based on highest rating)**
BNP Paribas 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)				
Year Ended December 31, 2019	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)				
Year Ended December 31, 2019	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)	55.8
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 December 31, 2019, the market value of total collateral funds was $38.7.

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 December 31, 2019, the market value of total collateral funds was $54.6.

MTA Hudson Rail Yards Ground Leases – In 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 December 31, 2019:

Year	ERY	WRY	Total
2020	19	16	35
2021	19	32	51
2022	19	33	52
2023	19	33	52
2024	19	33	52
Thereafter	849	1,492	2,341
Total	**$944**	**$1,639**	**$2,583**

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 December 31, 2019, 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 December 31, 2019 and 2018, of $237 and $234, respectively. The MTA made rent payments of $28 and $25 for the years ended December 31, 2019 and 2018, respectively. MTA pays the lease payments on behalf of MTA New York City Transit and MTA Bridges and Tunnels and subsequently makes monthly chargebacks in the form of rental payments. During 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 December 31, 2019 and 2018, is as follows (in millions):

	December 31, 2019	**December 31, 2018**
Capital lease - building	$196	$196
Less accumulated amortization	(95)	(92)
Capital lease - building - net	$101	$104

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

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

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

Total rent expense under operating leases approximated $72.9 and $67.4 for the years ended December 31, 2019 and 2018, respectively.

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

Years	**Operating**	**Capital**
2020	$ 76	$ 33
2021	77	24
2022	84	75
2023	84	19
2024	85	21
2025–2029	435	112
2030–2034	464	562
2035–2039	283	162
2040–2044	279	178
2045–2049	206	136
Thereafter	260	200
Future minimum lease payments	$ 2,333	1,522
Amount representing interest		(1,070)
Total present value of capital lease obligations		452
Less current present value of capital lease obligations		14
Noncurrent present value of capital lease obligations		$ 438

Capital Leases Schedule

For the Year Ended December 31, 2019
(in millions)

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

Capital Leases Schedule

For the Year Ended December 31, 2018
(in millions)

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

9. FUTURE OPTION

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

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

10. ESTIMATED LIABILITY ARISING FROM INJURIES TO PERSONS

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

	December 31, 2019	December 31, 2018
Balance - beginning of year	$ 4,254	$ 3,851
Activity during the year:		
Current year claims and changes in estimates	884	870
Claims paid	(551)	(467)
Balance - end of year	4,587	4,254
Less current portion	(501)	(454)
Long-term liability	$ 4,086	$ 3,800

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

11. COMMITMENTS AND CONTINGENCIES

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

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

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

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

On July 21, 2017, New York State Urban Development Corporation d/b/a Empire State Development ("ESD") executed a TIFIA Loan Agreement with the United States Department of Transportation (the "TIFIA Lender") in an amount of up to $526 (the "TIFIA Loan"), with a final maturity date of the earlier of (1) October 30, 2055 and (2) the last semi-annual payment date occurring no later than the date that is thirty-five (35) years following the date on which the Train Hall is substantially completed. The proceeds of the TIFIA Loan are being used to pay for costs of the construction of the Train Hall. The TIFIA Loan is secured by a mortgage on the Train Hall property. The principal and interest on the TIFIA Loan is payable from a pledged revenue stream that primarily consists of PILOT payments to be paid by certain tenants in the Retail and Commercial Space. The amount of the PILOT payments is fixed through September, 2030 and is thereafter calculated based upon the assessed value of the properties as determined by the 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 $42 and $106 for the years ended December 31, 2019 and 2018, respectively. A summary of the activity in pollution remediation liability at December 31, 2019 and 2018 were as follows:

	December 31, 2019	December 31, 2018
Balance at beginning of year	$ 139	$ 79
Current year expenses/changes in estimates	42	106
Current year payments	(30)	(46)
Balance at end of year	151	139
Less current portion	31	31
Long-term liability	$ 120	$ 108

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

13. CURRENT AND NON-CURRENT LIABILITIES

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

	Balance December 31, 2017	Additions	Reductions	Balance December 31, 2018	Additions	Reductions	Balance December 31, 2019
Current liabilities:							
Accounts payable	$ 607	$ -	$ (137)	$ 470	$ -	$ (27)	$ 443
Interest	204	6	-	210	77	-	287
Salaries, wages and payroll taxes	307	20	-	327	23	-	350
Vacation and sick pay benefits	988	32	-	1,020	20	-	1,040
Current portion — retirement and death benefits	14	2	-	16	-	(1)	15
Capital accrual	412	325	-	737	48	-	785
Unearned premiums	255	9		264	-	(59)	205
Other accrued expenses	606	87	-	693	81	-	774
Unearned revenues	594	210	-	804	-	(81)	723
Total current liabilities	**$ 3,987**	**$ 691**	**$ (137)**	**$ 4,541**	**$ 249**	**$ (168)**	**$ 4,622**
Non-current liabilities:							
Contract retainage payable	$ 376	$ 30	$ -	406	$ 29	$ -	$ 435
Other long-term liabilities	347	29	-	376	-	(4)	372
Total non-current liabilities	**$ 723**	**$ 59**	**$ -**	**$ 782**	**$ 29**	**$ (4)**	**$ 807**

14. FUEL HEDGE

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

Counterparty	Goldman Sachs	Goldman Sachs	Goldman Sachs	Macquarie Energy LLC	Goldman Sachs	Goldman Sachs	BOA_ Merrill	Goldman Sachs
Trade Date	1/31/2018	2/28/2018	3/28/2018	4/24/2018	5/29/2018	6/26/2018	7/31/2018	8/29/2018
Effective Date	1/1/2019	2/1/2019	3/1/2019	4/1/2019	5/1/2019	6/1/2019	7/1/2019	8/1/2019
Termination Date	12/31/2019	1/31/2020	2/29/2020	3/31/2020	4/30/2020	5/31/2020	6/30/2020	7/31/2020
Price/Gal	$1.9570	$1.8815	$1.9805	$2.0795	$2.1590	$2.1755	$2.1730	$2.2145
Original Notional Quantity	2,870,565	2,786,237	2,853,500	2,799,258	2,841,090	2,841,069	2,820,856	2,831,924

Counterparty	Goldman Sachs	Cargill	BOA_ Merrill	BOA_ Merrill	Cargill	Cargill	Goldman Sachs	Goldman Sachs
Trade Date	9/25/2018	10/30/2018	11/27/2018	1/3/2019	1/29/2019	2/28/2019	3/28/2019	4/30/2019
Effective Date	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	4/1/2020
Termination Date	8/31/2020	9/30/2020	10/31/2020	11/30/2020	12/31/2020	1/31/2021	2/28/2021	3/31/2021
Price/Gal	$2.2885	$2.2455	$1.9213	$1.7885	$1.9390	$2.0518	$2.0045	$2.0650
Original Notional Quantity	2,831,922	2,831,934	3,023,197	2,856,019	2,856,014	2,793,123	2,849,714	2,874,889

Counterparty	Goldman Sachs	Goldman Sachs	Goldman Sachs	Macquarie Energy LLC	BOA_ Merrill	Goldman Sachs	Goldman Sachs	BOA_ Merrill
Trade Date	5/28/2019	6/25/2019	7/30/2019	8/27/2019	9/30/2019	10/29/2019	11/26/2019	12/30/2019
Effective Date	5/1/2020	6/1/2020	7/1/2020	8/1/2020	9/1/2020	10/1/2020	11/1/2020	12/1/2020
Termination Date	4/30/2021	5/31/2021	6/30/2021	7/31/2021	8/31/2021	9/30/2021	10/31/2021	11/30/2021
Price/Gal	$1.9675	$1.9200	$1.8875	$1.7790	$1.8075	$1.8420	$1.8600	$1.9040
Original Notional Quantity	2,851,286	2,851,258	2,788,533	2,842,790	2,844,946	2,839,784	2,839,778	2,839,796

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 December 31, 2019, the total outstanding notional value of the ULSD contracts was 52.5 million gallons with a negative fair market value of $1.3. The valuation of each trade was based on discounting future net cash flows to a single current amount (the income approach) using observable commodity futures prices (Level 2 inputs).

15. CONDENSED COMPONENT UNIT INFORMATION

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

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	$ 6,050	$ 225	$ 228	$ 651	$ 702	$ (53)	$ 7,803
Capital assets	12,067	5,477	7,881	45,323	6,661	-	77,409
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	**$ 33,432**	**$ 6,222**	**$ 8,835**	**$ 49,670**	**$ 8,633**	**$ (15,227)**	**$ 91,565**
Current liabilities	$ 6,474	$ 306	$ 258	$ 1,974	$ 823	$ (77)	$ 9,758
Non-current liabilities	36,748	2,171	3,771	21,867	10,318	(148)	74,727
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	**$ 45,784**	**$ 2,762**	**$ 4,418**	**$ 25,696**	**$ 11,749**	**$ (3,295)**	**$ 87,114**
Net investment in capital assets	$ (29,362)	$ 5,464	$ 7,882	$ 45,144	$ 2,097	$ 46	$ 31,271
Restricted	1,668	-	-	-	1,026	(857)	1,837
Unrestricted	15,342	(2,004)	(3,465)	(21,170)	(6,239)	(11,121)	(28,657)
Total net position	**$ (12,352)**	**$ 3,460**	**$ 4,417**	**$ 23,974**	**$ (3,116)**	**$ (11,932)**	**$ 4,451**
For the year ended December 31, 2019							
Fare revenue	$ 231	$ 757	$ 769	$ 4,594	$ -	$ -	$ 6,351
Vehicle toll revenue	-	-	-	-	2,071	-	2,071
Rents, freight and other revenue	76	56	40	467	24	(42)	621
Total operating revenue	**307**	**813**	**809**	**5,061**	**2,095**	**(42)**	**9,043**
Total labor expenses	1,216	1,014	1,222	7,309	287	-	11,048
Total non-labor expenses	493	399	397	2,130	247	(41)	3,625
Depreciation	88	242	379	1,994	167	-	2,870
Total operating expenses	**1,797**	**1,655**	**1,998**	**11,433**	**701**	**(41)**	**17,543**
Operating (deficit) surplus	**(1,490)**	**(842)**	**(1,189)**	**(6,372)**	**1,394**	**(1)**	**(8,500)**
Subsidies and grants	1,281	136	-	654	8	(422)	1,657
Tax revenue	5,090	-	-	3,270	159	(2,719)	5,800
Interagency subsidy	779	406	2,061	334	-	(3,580)	-
Interest expense	(1,239)	-	-	(4)	(318)	4	(1,557)
Other	(2,310)	-	-	(7)	9	2,108	(200)
Total non-operating revenues (expenses)	**3,601**	**542**	**2,061**	**4,247**	**(142)**	**(4,609)**	**5,700**
Loss before appropriations	2,111	(300)	872	(2,125)	1,252	(4,610)	(2,800)
Appropriations, grants and other receipts externally restricted for capital projects	(3,196)	566	-	3,174	(767)	3,521	3,298
Change in net position	(1,085)	266	872	1,049	485	(1,089)	498
Net position, beginning of year	(11,267)	3,194	3,545	22,925	(3,601)	(10,843)	3,953
Restatement of beginning net position							-
Net position, end of year	$ (12,352)	$ 3,460	$ 4,417	$ 23,974	$ (3,116)	$ (11,932)	$ 4,451
For the year ended December 31, 2019							
Net cash (used in) / provided by operating activities	$ (1,137)	$ (457)	$ (626)	$ (3,527)	$ 1,601	$ (203)	$ (4,349)
Net cash provided by / (used in) non-capital financing activities	6,909	536	653	4,274	(791)	(4,136)	7,445
Net cash (used in) / provided by capital and related financing activities	(4,594)	(68)	(29)	(958)	(546)	4,135	(2,060)
Net cash provided by / (used in) investing activities	(1,296)	-	-	194	(125)	204	(1,023)
Cash at beginning of year	430	26	9	66	10	-	541
Cash at end of year	**$ 312**	**$ 37**	**$ 7**	**$ 49**	**$ 149**	**$ -**	**$ 554**

December 31, 2018	MTA	Metro-North Railroad	Long Island Railroad	New York City Transit Authority	Triborough Bridge and Tunnel Authority	Eliminations	Consolidated Total
Current assets	$ 5,337	$ 206	$ 244	$ 633	$ 461	$ (116)	$ 6,765
Capital assets	11,032	5,092	6,826	43,195	6,366	-	72,511
Other Assets	11,825	5	-	-	4	(10,772)	1,062
Intercompany receivables	696	95	153	1,627	730	(3,301)	-
Deferred outflows of resources	1,528	315	435	1,738	487	(143)	4,360
Total assets and deferred outflows of resources	**$ 30,418**	**$ 5,713**	**$ 7,658**	**$ 47,193**	**$ 8,048**	**$ (14,332)**	**$ 84,698**
Current liabilities	$ 4,374	$ 316	$ 272	$ 1,900	$ 836	$ (89)	$ 7,609
Non-current liabilities	34,509	2,070	3,705	21,609	10,249	(120)	72,022
Intercompany payables	2,655	65	48	-	512	(3,280)	-
Deferred inflows of resources	147	68	88	759	52	-	1,114
Total liabilities and deferred inflows of resources	**$ 41,685**	**$ 2,519**	**$ 4,113**	**$ 24,268**	**$ 11,649**	**$ (3,489)**	**$ 80,745**
Net investment in capital assets	$ (26,670)	$ 5,079	$ 6,826	$ 43,018	$ 2,026	$ (279)	$ 30,000
Restricted	1,716	-	-	-	902	(728)	1,890
Unrestricted	13,687	(1,885)	(3,281)	(20,093)	(6,529)	(9,836)	(27,937)
Total net position	**$ (11,267)**	**$ 3,194**	**$ 3,545**	**$ 22,925**	**$ (3,601)**	**$ (10,843)**	**$ 3,953**
For the year ended December 31, 2018							
Fare revenue	$ 228	$ 740	$ 740	$ 4,447	$ -	$ -	$ 6,155
Vehicle toll revenue	-	-	-	-	1,976	-	1,976
Rents, freight and other revenue	78	52	49	446	24	(44)	605
Total operating revenue	**306**	**792**	**789**	**4,893**	**2,000**	**(44)**	**8,736**
Total labor expenses	1,119	1,044	1,205	6,853	275	-	10,496
Total non-labor expenses	525	409	416	2,118	242	(44)	3,666
Depreciation	105	230	362	1,833	149	-	2,679
Total operating expenses	**1,749**	**1,683**	**1,983**	**10,804**	**666**	**(44)**	**16,841**
Operating (deficit) surplus	**(1,443)**	**(891)**	**(1,194)**	**(5,911)**	**1,334**	**-**	**(8,105)**
Subsidies and grants	1,359	135	-	825	9	(793)	1,535
Tax revenue	4,760	-	-	3,252	-	(2,580)	5,432
Interagency subsidy	702	422	1,906	285	-	(3,315)	-
Interest expense	(1,169)	-	-	(17)	(293)	19	(1,460)
Other	(2,449)	(1)	-	(115)	4	2,707	146
Total non-operating revenues (expenses)	**3,203**	**556**	**1,906**	**4,230**	**(280)**	**(3,962)**	**5,653**
Loss before appropriations	1,760	(335)	712	(1,681)	1,054	(3,962)	(2,452)
Appropriations, grants and other receipts externally restricted for capital projects	(3,253)	441	-	2,652	(600)	3,062	2,302
Change in net position	(1,493)	106	712	971	454	(900)	(150)
Net position, beginning of the year	(10,023)	3,838	4,246	21,148	(4,042)	(9,943)	5,224
Restatement of beginning net position	249	(750)	(1,413)	806	(13)	-	(1,121)
Net position, end of year	$ (11,267)	$ 3,194	$ 3,545	$ 22,925	$ (3,601)	$ (10,843)	$ 3,953
For the year ended December 31, 2018							
Net cash (used in) / provided by operating activities	$ (1,305)	$ (457)	$ (834)	$ (3,359)	$ 1,517	$ 154	$ (4,284)
Net cash provided by / (used in) non-capital financing activities	6,427	542	825	4,224	(693)	(4,275)	7,050
Net cash (used in) / provided by capital and related financing activities	(6,095)	(74)	13	(811)	(600)	4,233	(3,334)
Net cash provided by / (used in) investing activities	1,204	-	-	(44)	(222)	(112)	826
Cash at beginning of year	199	15	5	56	8	-	283
Cash at end of year	**$ 430**	**$ 26**	**$ 9**	**$ 66**	**$ 10**	**$ -**	**$ 541**

16. SUBSEQUENT EVENTS

On January 8, 2020, MTA issued $1.5 billion MTA Transportation Revenue Bond Anticipation Notes, Series 2020A (“the Series 2020A Notes”), with $800 Subseries 2020A-1 maturing February 1, 2023 and $700 Subseries 2020A-2S maturing February 1, 2022. The Series 2020A Notes were issued to (i) finance existing approved transit and commuter projects, (ii) pay capitalized interest on the Series 2020A Notes accruing through maturity, and (iii) pay certain financing, legal, and miscellaneous expenses.

On January 16, 2020, MTA issued $925 MTA Transportation Revenue Green Bonds, Series 2020A (“the Series 2020A Bonds”), with $687 Subseries 2020A-1, maturing each November 15 from 2040 through 2054, and $238 Subseries 2020A-2 maturing on May 15, 2024. The Series 2020A Bonds were issued to (i) retire the outstanding MTA Transportation Revenue Bond Anticipation Notes, Series 2019A, (ii) refund the MTA Transportation Revenue Bonds, Subseries 2016C-2b, and (iii) pay certain financing, legal, and miscellaneous expenses.

On January 24, 2020, MTA effectuated a mandatory tender and remarketed $102 MTA Triborough Bridge and Tunnel Authority General Revenue Variable Rate Bonds, Series 2005A, to bear interest in the Weekly Mode as described in the Remarketing Circular.

On January 30, 2020, MTA executed a 2,839,808 gallon ultra-low sulfur diesel fuel hedge with Merrill Lynch at an all-in price of $1.7100 (whole dollars) per gallon. The hedge covers the period from January 2021 through December 2021.

On February 3, 2020, MTA effectuated a mandatory tender and remarketed $75 Transportation Revenue Variable Rate Refunding Bonds, Subseries 2012G-3 (Libor Floating Rate Tender Notes), which will bear interest in the Term Rate Mode at a variable rate equal to the Adjusted SIFMA Rate, as described in the Remarketing circular.

On February 25, 2020, MTA executed a 2,841,331 gallon ultra-low sulfur diesel fuel hedge with Goldman, Sachs & Co./J. Aron at an all-in price of $1.6750 (whole dollars) per gallon. The hedge covers the period from February 2021 through January 2022.

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

On March 24, 2020, MTA executed a 2,819,772 gallon ultra-low sulfur diesel fuel hedge with Cargill at an all-in price of $1.3473 (whole dollars) per gallon. The hedge covers the period from March 2021 through February 2022.

On March 24, 2020, S&P Global Ratings lowered its issuer rating to ‘A-’ from ‘A’ on the MTA’s Transportation Revenue Bonds (“TRBs”) and assigned its ‘A-’ long-term rating to the MTA’s proposed $800 series 2020C transportation revenue bonds. The outlook is negative.

On March 24, 2020, S&P downgraded MTA’s Enhanced Transportation Revenue Bond Subseries 2002G-1g, 2005E-2, 2012A-2, 2012G-2, 2015E-1, and 2015E-3 to ‘AA’ as result of its downgrade of MTA’s Transportation Revenue Bonds on the same day.

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 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 TRB on a Negative Outlook.

On April 3, 2020 Fitch downgraded Enhanced Transportation Revenue Bond Subseries 2005E-1, 2005E-3 ,2015E-4, 2005D-2, 2012G-1 to ‘AA’, as result of its downgrade of MTA’s Transportation Revenue Bonds on the prior day.

On April 9, 2020, Fitch Ratings downgraded Enhanced DTF Subseries 2002B-1 (CUSIP 59259N2Z5) to ‘AA’ from ‘AAA’ as result of its downgrade of the LOC provider MUFG Bank, Ltd. the prior day.

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

On April 20, 2020, MTA drew down $244 of its $967 RRIF Loan, bringing the total outstanding to $663.

On April 30, 2020, MTA executed a 2,819,762 gallon ultra-low sulfur diesel fuel hedge with Macquarie Energy LLC at an all-in price of $1.1800 (whole dollars) per gallon. The hedge covers the period from April 2021 through March 2022.

On May 4, 2020, S&P Global Ratings placed the following ratings on MTA’s debt with negative implications: (1) ‘AA/A-1+’ dual rating on the MTA’s series 2012G-2 and 2002G-1G variable-rate Transportation Revenue Bonds, with enhancement by letters of credit from Toronto Dominion Bank, and on the MTA’s series 2015E-1 variable-rate Transportation Revenue Bonds, with enhancement by a letter of credit from U.S. Bank N.A.; (2) ‘AA/A-1’ dual rating on the MTA’s series 2005E-2 and 2015E-3 variable-rate Transportation Revenue Bonds, with enhancement by letters of credit from Bank of America N.A., and on the MTA’s series 2012A-2 variable-rate Transportation Revenue Bonds, with enhancement by a letter of credit from

Bank of Montreal; (3) 'AA/A-1' dual rating on various other variable-rate Transportation Revenue Bond with enhancement by letters of credit from Barclays Bank PLC, PNC Bank, N.A., MUFG Bank Ltd., and Landesbank Hessen-Thueringen Girozentrale; (4) 'A-' long-term rating to the MTA's $250 million series 2015A-2 remarketed Transportation Revenue Bonds (mandatory tender bonds).

Assessment of Impacts from the COVID-19 Pandemic on MTA and MTA Bridges and Tunnels Finances and Operations

- ***Background Relating to the Global Coronavirus Pandemic.*** The novel coronavirus ("COVID-19") outbreak is continuing to have an adverse and severe impact on MTA's financial condition and operating results. 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 12, 2020, the World Health Organization declared the COVD-19 outbreak to be a pandemic in the face of the global spread of the virus. The COVID-19 pandemic has dramatically altered the behavior of businesses and people in a manner that is having negative effects on global and local economies. In addition, stock markets in the U.S. and globally, have seen significant declines and volatility attributed to concerns over COVID-19, and capital markets remain disrupted. These adverse impacts have intensified and continue to evolve daily globally, nationally, and particularly within the State and MTA's service area, which has become the most severely impacted region in the United States, with the most confirmed cases of infection and regrettably the most fatalities from COVID-19. On March 7, 2020 Governor Cuomo declared a Disaster Emergency in the State of New York and on March 13, 2020 President Trump declared a national state of emergency as a result of the COVID-19 pandemic. In addition, by order of Governor Cuomo ("New York State on PAUSE"), as of Sunday, March 22nd, all non-essential businesses Statewide were required to be closed, among other restrictive social distancing and related measures. These related measures, most recently, include by Governor's Executive Order, that effective at 8 p.m. on Friday, April 17, 2020 any individual who is over age two and able to medically tolerate a face-covering shall be required to cover their nose and mouth with a mask or cloth face-covering when in a public place and unable to maintain, or when not maintaining, social distance. New York State on PAUSE restrictions remain in place at least through May 15, 2020. This intervention to fight the aggressive spread of the COVID-19 pandemic has further eroded already severely diminished public transportation and bridge and tunnel usage during the duration of the COVID-19 pandemic.

- ***Currently Adopted Federal Legislative and Administrative Actions.*** The Federal government has taken several actions which are expected to provide flexibility and substantial additional funding to MTA. The Federal Transit Administration ("FTA") has given transit grantees, including MTA, the flexibility to apply certain existing grant program proceeds, previously only available for capital expenditures, to be applied for operating expenses or other purposes to address COVID-19 pandemic impacts.

  In addition, Federal emergency legislation, the "Coronavirus Aid, Relief and Economic Security Act" or "CARES Act", received final passage by Congress and was signed into law by the President on March 27, 2020. The CARES Act through FTA's formula funding provisions is expected to provide approximately $3.8 billion to MTA. Funding will be provided at a 100 percent Federal share, with no local match required, and will be 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.

  MTA is also eligible for FEMA payments in addition to the CARES Act funding. FEMA will cover expenses that are over and above normal costs that are related to COVID-19, such as sanitizing MTA facilities and safety at job sites to ensure COVID -19 regulations are being adhered to.

- ***Updated Assessment of 2020 Impacts of the COVID-19 Pandemic and Economic Study Analysis.*** On April 16, 2020, MTA Chairman and Chief Executive Officer Patrick J. Foye wrote to the New York State Congressional delegation, urging Congressional action to provide an additional $3.9 billion in Federal grant assistance "to stem the immediate hemorrhaging in the MTA's 2020 operating budget". Such aid would be supplemental to the approximately $3.8 billion contained in the CARES Act, and would have to be included in any upcoming new Congressional COVID-19 aid package, and is also exclusive of any capital infrastructure stimulus funding to be considered by Congress and the Administration.

  The CARES Act funding amounts for MTA derived from a conservative estimate based on the information MTA management had at the time. A clearer picture of the impact of the crisis has emerged over the last few weeks, and now with the aid of a detailed economic study led by McKinsey & Company (the "McKinsey Report"), MTA management projects the full 2020 financial impact of the COVID-19 crisis to the MTA to be between $7.0 and $8.5 billion. After the receipt of the expected $3.8 billion under the CARES Act, the net financial impact in 2020 is estimated to be between $3.2 and $4.7 billion. The $3.9 billion request is the midpoint of this range.

  Compared to 2019 results, ridership has now declined 93 percent on the subways, 95 percent on MTA Metro-North Railroad, and 97 percent on the Long Island Rail Road, with equally reduced ridership on buses. Crossings at MTA Bridges and Tunnels facilities are down by an estimated 62% from 2019 figures. Based on the current ridership and reasonable forecasts of a slow return to higher (but not pre-COVID-19 pandemic) levels in 2020, MTA, based upon projections in the McKinsey Report, expects to see combined losses in fare and toll revenues of between $4.7 and $5.9 billion in 2020, and additional impacts in 2021. Projections for 2021 are of necessity more speculative at this time and were beyond the scope of the McKinsey Report.

Moreover, the McKinsey Report, based upon limited available data, forecasts losses of between $1.6 and $1.8 billion in State and local taxes dedicated to MTA in 2020 as a result of the extraordinary economic downturn facing the region and nation.

Finally, MTA is also incurring additional expenses related to ensuring the safety of employees and riders, by disinfecting stations, rolling stock and work spaces to a new, even more costly level. The McKinsey Report estimates these incremental operational expenses for 2020 to be between $700 and $800 (inclusive of a portion of the $300 COVID-19 annualized costs estimate referred to in the March 25th Supplement). The dedication of MTA workers has come at the highest cost in illness and loss of life. Sixty-eight MTA employees have tragically passed away due to COVID-19. MTA New York City Transit alone has more than 2,400 subway and bus employees who have tested positive for COVID-19. Another 4,400 are on home quarantine and thousands more are calling out sick. MTA does not expect those overhead costs to decline, but instead to increase as ridership returns.

The McKinsey Report provided an estimate of the shortfalls discussed below through the end of calendar year 2020, ranging between $3.2 and $4.7 billion after accounting for the $3.8 billion the MTA is expected to receive through the CARES Act.

By way of background to the McKinsey Report forecasts, on March 17, 2020, five days before the stay-at-home order went into effect for New York State, MTA projected that it would face a 2020 budget shortfall of at least $4 billion in fare and toll revenues, based upon then current ridership and bridge and tunnel crossings declines. This estimate explicitly did not take into account the impact of the COVID-19 pandemic on taxes and other dedicated revenue streams that support MTA's operations. Approximately, one month later, it is now clear that the COVID-19 pandemic is more severe and of longer duration than had been anticipated. The impact to MTA's finances is material and leaves a gap that must be filled in order to sustain normal operations. MTA has begun refining the fare and toll revenue loss projections to reflect these changes, as well as projecting losses in the tax and other subsidy revenues that generally make up approximately one-half of MTA's total revenue sources. McKinsey & Company was contracted by MTA to analyze the potential impact of the COVID-19 pandemic on MTA's 2020 calendar year revenues.

As noted above, this analysis did not attempt to capture the impact of the COVID-19 pandemic on MTA finances in 2021. A view of 2021 will need to be developed when the key factors that influence it; the course of the virus, public health responses, including social isolation measures, and the trajectory of the economic recovery, can be seen with greater clarity. The McKinsey Report focused on operating costs and did not make any assumptions related to additional capital expenditures that MTA may incur over the course of the COVID-19 pandemic. It is limited to giving an initial view of additional operating costs.

In general, the McKinsey Report reviewed two scenarios for how revenues may be affected in the full calendar year 2020. The scenarios developed reflected different assumptions for how transit and commuter rail ridership and bridge and tunnel traffic will behave across several variables. The report further analyzed MTA's dedicated revenue streams and the impact of the COVID-19 pandemic on the variety of economic activity that generates much of the dedicated tax component of this revenue stream. The estimated incremental negative revenue impacts on MTA, after accounting for the CARES Act assistance of $3.8 billion, ranged from $3.2 billion to $4.7 billion. The midpoint between these two scenarios, $3.9 billion, was selected as the basis of MTA's April 16th request to Congress.

There is substantial risk that the higher end of the range could materialize based on uncertainties in the course of the COVID-19 pandemic, the speed of development and mass promulgation of high-volume clinical testing and protocols, the availability of medical supplies and equipment, continued public adherence to protective policies, and Federal policy response.

- ***MTA Liquidity Resources***. MTA currently has liquidity resources, consisting of a current running cash balance, internal available flexible funds, OPEB resources and commercial bank lines of credit totaling $1.201 billion ($1.0 billion of which has been drawn). 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.

  Longer-term resource options to address the COVID-19 pandemic impacts, may include, but are not limited to, (i) approximately $4 billion in federal emergency transit grants pursuant to the CARES Act, (ii) replacing programmed pay-as-you-go capital funds with long term bonding, (iii) various debt restructuring options generating potential resources depending upon market conditions and other matters, and (iv) applying new, federal FTA grant flexibility rules to use in the current federal fiscal year for operating relief in the emergency. The MTA Board on March 25, 2020 authorized MTA to secure an additional $2 billion in commercial bank lines of credit market conditions permitting. Also, see the additional significant financial assistance and flexibility provided in the State's FY 2020-21 Enacted Budget. There can be no assurance that MTA will be successful in securing additional lines of credit.

As noted above, exercising these options would come at a cost, including increased longer-term borrowing and potential adverse impacts on the timing of MTA initiatives to improve its systems. The loss of farebox and toll revenues, potential declines in State and local, as well as reprogramming of available federal and possibly State generated funding support for capital purposes, to urgent financial needs, will result in delays and shortfalls in implementing Capital Plan projects. The full impact of the COVID-19 pandemic on Capital Plan implementation cannot be determined at this time.

Finally, as is provided in the February Plan, MTA relies in State and local subsidies and dedicated taxes. The financial stress which MTA is experiencing as a result of the COVID-19 pandemic is being similarly felt at all levels of the government and in the social and financial lives of MTA patrons and State and local residents. This can be expected to have a substantial adverse impact on State and local revenues, on dedicated tax collections, and thus on the capacity of the State and local governments to maintain or raise the level of financial support to MTA during this crisis.

- ***NY Essential Service Plan.*** On March 24, 2020, MTA management announced the implementation of the "NY Essential Service Plan ("Service Plan")." The Service Plan is designed to ensure healthcare workers, first responders and essential personnel are able to get to and from work by public transportation. MTA New York City Transit, MTA Long Island Rail Road and MTA Metro-North Railroad have implemented temporary reduced service schedules.

  The Service Plan includes the following specific measures:

  - **Subways and Buses:** On the subways, beginning March 25, 2020, service reductions were implemented. The service changes preserve MTA New York City Transit's a.m. and p.m. peak service to get first responders and essential personnel to their destinations. Some lines will not run Monday through Friday, including the B, W and Z lines, which will be covered by other local service. Some express services and branches on some lines will operate only local service. MTA New York City Transit will continue to undertake a line-by-line, hour-by-hour analysis of ridership, retaining flexibility to increase service as necessary.

    The Service Plan for buses started on March 26, 2020. The plan retains 75 percent of normal bus service, allows the MTA to serve essential workers and reduce crowding on transit and in crew facilities. Customers who still need to use buses for essential activities will continue to be accommodated. At the same time, the maximum number of buses needed will be substantially reduced, requiring fewer operators and lessening crowding of depot facilities.

  - **Long Island Rail Road and Metro-North**: MTA Long Island Rail Road will have over 500 weekday trains running, compared to a normal weekday of over 740 trains, beginning March 27, 2020. MTA Long Island Rail Road will also have crews and equipment on standby to supplement service if necessary.

    Beginning on March 27, 2020, MTA Metro-North Railroad will provide hourly service on the Harlem, Hudson and New Haven lines, with extra trains added during peak times. Normal weekday capacity will be reduced by approximately 50 percent when compared to a normal weekday. The reduced schedule will run 424 trains, down from 713 during a normal schedule.

    Beginning the weekend of April 4/April 5, MTA Metro-North Railroad will provide hourly service while also suspending shuttle service between Wassaic and Southeast on the Upper Harlem line.

  - **Paratransit:** The paratransit program has eliminated shared rides, in accordance with the recommended public health guidance, and extended eligibility for existing Access-A-Ride customers. The paratransit system continues to have capacity to serve demand.

    All of the foregoing service changes are described on MTA website, the MYmta app and on countdown clocks in stations and on platforms.

    The schedule changes follow the Governor's "New York State on PAUSE" order, which directed New Yorkers use of public transportation for only essential travel and attempts to limit potential exposure by spacing out riders by six feet. MTA New York City Transit, MTA Bus Company, MTA Long Island Rail Road and MTA Metro-North Railroad continue their aggressive disinfecting procedures at each of its stations twice daily, and continue daily sanitization of its fleet of rolling stock with the full fleet of train cars and buses disinfected every 72 hours or less. The Access-A-Ride dedicated fleet is disinfected daily. Surfaces frequently used by customers in stations, such as turnstiles, MetroCard and ticket vending machines, and handrails, will be disinfected twice daily with EPA-approved and National Centers for Disease Control-endorsed disinfectants.

    MTA is employing its pandemic plan, which is updated regularly, and serves as a blueprint guiding the MTA's response in accordance with Federal, State and local authorities. Through the end of March, MTA has distributed the following resources to operating employees: masks, gloves to those whose jobs require it, bottles of hand sanitizer, gallons of cleaning supplies and boxes of sanitizing wipes. Additionally, MTA continues to replenish and maintain a stockpile of these essential items so that MTA can continue to distribute them as needed. In addition, to these actions, MTA has taken a number of aggressive steps to ensure worker safety, including reducing the number of crews that need to report to work, implementing rear-door boarding to ensure social distance for bus operators, eliminating cash transactions and, as detailed above, disinfecting workplaces, trains, business and all rolling stock, among other actions. MTA is also working closely with the National Centers for Disease Control, the State Department of Health, and other government agencies during this time.

- ***Capital Plan Procurement and Construction Contract Delays***. MTA Construction and Development Company ("MTACDC") is currently evaluating the impacts of the COVID-19 pandemic on MTA's Capital Plans. MTACDC expects to reassess a path forward for implementation of the Capital Plans in the face of the COVID-19 pandemic in 60 days. In the meantime, MTACDC will cease the award of new Capital Plan construction or consulting contracts and, with few exceptions, MTACDC is, effective April 1, 2020, suspending action on open solicitations for all such contracts. With limited exceptions, the dates for submission of bids, requests for qualification and requests for proposals for open solicitations for MTACDC, or for any other capital budget-funded MTA projects, will be adjourned until further notice. Similarly, currently scheduled qualification hearings and pre-bid conferences have been cancelled and will be rescheduled as appropriate. The full impact of the COVID-19 pandemic on Capital Plan implementation cannot be determined at this time.

- ***New York State Fiscal Year 2020-21 Budget Provisions of Importance to MTA.*** Several provisions in the State's fiscal year 2020-21 budget (as passed by both the State Assembly and State Senate and signed by the Governor on April 3, 2020 the "State FY 2020-21 Enacted Budget"), are intended to provide significant financial assistance and flexibility to aid MTA in addressing the adverse impacts caused by the COVID-19 pandemic. Among the provisions in the State FY 2020-21 Enacted Budget addressing MTA's needs are the following:

  (i) amends existing law to allow MTA to use monies in the Central Business District Tolling Lockbox Fund (the "CBD Tolling Lockbox Fund") for two years (2020 and 2021) to offset decreases in revenue (i.e. lost taxes, fees, charges, fares and tolls) or increases in operating costs due in whole or in part to the State emergency disaster caused by the COVID-19 pandemic. The CBD Tolling Lockbox Fund currently includes Internet sales tax revenue and mansion tax revenue that will be used for operations. In the future, CBD tolling revenue will be added when that program is up and running, although CBD tolling revenue may be restricted under Federal law to capital expenses. All revenues deposited in such fund were under prior law only available for capital costs of MTA's 2020-24 Capital Plan and successor capital plans, and costs of the Central Business District tolling program. This provision also provides that if MTA receives funds/reimbursements from Federal government or insurance due to the COVID-19 pandemic, MTA must repay the CBD Tolling Lockbox Fund, but only after it has first fully repaid any COVID-19 pandemic related public or private borrowings, draws on lines of credit; issuances of revenue anticipation notes, internal loans; or use of corpus of MTA's OPEB trust;

  (ii) amends existing law to increase MTA's bond cap from $55.497 billion to $90.1 billion through 2024;

  (iii) creates new authorization for MTA to issue up to $10 billion of bonds for three years (2020-2022) to offset decreases in revenue (i.e. lost taxes, fees, charges, fares and tolls) or increases in operating costs of the MTA and its Related Entities due in whole or in part to the State disaster emergency caused by the COVID-19 pandemic;

  (iv) commits the State and the City to each pay $3 billion to fund capital costs of the MTA's 2020-2024 Capital Plan. Additionally,

  - State's Director of the Budget will determine schedule for the City's payments of its $3 billion share to MTA,
  - if the City does not pay in full any of its scheduled payments, the Director of the Budget shall require the State Comptroller to intercept aid to localities appropriations to the City, or any other revenue source of the City, including sales and use tax, in an amount equal to the City's unpaid balance and deposit it into a newly established State-held fund, the MTA Capital Assistance Fund, and
  - the State Comptroller must pay monies deposited in the MTA Capital Assistance Fund to MTA without appropriation, and

  (v) requires the City, beginning on July 1, 2020, to pay one-half of the MTA's net paratransit operating expenses for four years: 2020, 2021, 2022, and 2023, and provides a statutory mechanism to intercept funds otherwise available to the City to insure payment of the City's share, if necessary. The City's contribution for each of those years is capped in the law as follows: 2020: $215; 2021: $277; 2022: $290; and 2023: $310.

- ***Dedication of 341-7 Madison Avenue Redevelopment Proceeds to MTA Capital Program.*** MTA and the City of New York announced on April 2, 2020, an agreement on a site-specific value capture strategy to speed development of 341-7 Madison Avenue, the site of the MTA's former headquarters in midtown Manhattan. Real estate taxes and other revenue generated from the future ground lease for the redevelopment of the property will be dedicated to the MTA capital program. The redevelopment plan is projected to generate more than $1 billion over the life of the ground lease to fund approved MTA New York City Transit projects. The agreement is part of the City of New York's commitment to provide $600 from alternative non-tax-levy revenue sources as part of its $2.66 billion contribution to MTA's 2015-2019 Capital Plan.

- ***COVID-19 Family Benefits Agreement***. On April 14, 2020, the MTA, Transport Workers Union Local 100 (TWU), the International Association of Sheet Metal, Air, Rail and Transportation Workers (SMART), and International Brotherhood of Teamsters Local 808 (IBT) reached an agreement on COVID-19 family benefits for transportation workers tragically lost in the pandemic. The benefits include a payment of $500,000 (whole dollars) from the MTA to the surviving family of any worker who lost their life as a result of COVID-19, in addition to providing health insurance to the spouse and dependents to the age of 26 of the surviving family for three years. The MTA continues to have ongoing discussions with all labor partners to extend the COVID-19 family benefits agreement to all members of its represented workforce. The agreement will also be extended to all non-represented employees. The agreement is subject to Board ratification on April 22, 2020.

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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.

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, **(continued)**

($ 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 thorugh 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 thorugh 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 thorugh 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 thorugh 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 thorugh 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's 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's Scale MP-2014.	Annuitant mortality rates are based on NYSLERS's 2010 experience study of the period April 1, 2005 through March 31, 2010 with adjustments for mortality improvements based on the Society of Actuaries's Scale MP-2014.	Annuitant mortality rates are based on NYSLERS's 2010 experience study of the period April 1, 2005 through March 31, 2010 with adjustments for mortality improvements based on the Society of Actuaries's Scale MP-2014.	Annuitant mortality rates are based on NYSLERS's 2010 experience study of the period April 1, 2005 through March 31, 2010 with adjustments for mortality improvements based on the Society of Actuaries's Scale MP-2014.
Pre-retirement:	N/A	N/A	N/A	N/A	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.

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

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	$ 691,122	$ 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%	10.01%	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.

(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

	Pension Funds			Other Employee Benefit Trust Funds		
($ in thousands)	Defined Benefit Pension Plan	LIRR Company Plan for Additional Pensions	MaBSTOA Plan	Other Post-employment Benefit Plan	Deferred Compensation 401K Plan	Total
ASSETS:						
Cash	$ 6,891	$ 1,114	$ 6,494	$ -	$ -	$ 14,499
Receivables:						
Employee loans	-	-	40,092	-	168,314	208,406
Participant and union contributions	-	21	-	-	-	21
Investment securities sold	-	104	1,036	-	-	1,140
Accrued interest and dividends	2,950	477	1,419	20	-	4,866
Other receivables	2,149	33	-	-	-	2,182
Total receivables	5,099	635	42,547	20	168,314	216,615
Investments at fair value:						
Investments measured at readily determined fair value	999,705	161,582	531,619	-	-	1,692,906
Investments measured at net asset value	3,776,051	676,685	2,730,245	414,929	2,887,279	10,485,189
Investments at contract value	-	-	-	-	1,435,218	1,435,218
Total investments	4,775,756	838,267	3,261,864	414,929	4,322,497	13,613,313
Total assets	$ 4,787,746	$ 840,016	$ 3,310,905	$ 414,949	$ 4,490,811	$ 13,844,427
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 liabiliities	516	69	-	-	-	585
Total liabilities	8,177	308	14,220	122	837	23,664
NET POSITION:						
Restricted for pensions	4,779,569	839,708	3,296,685	-	-	8,915,962
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	3,296,685	414,827	4,489,974	13,820,763
Total liabilities and net position	$ 4,787,746	$ 840,016	$ 3,310,905	$ 414,949	$ 4,490,811	$ 13,844,427

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 liabiliities	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	$ 344,713	$ 62,774	$ 206,389	$ 660,539	$ 4,402	$ 1,278,817
Non0Employer contributions	-	-	-	-	-	-
Implicit rate subsidy contribution	-	-	-	69,618	-	69,618
Participant rollovers	-	-	-	-	23,941	23,941
Member contributions	31,504	249	23,552	-	298,185	353,490
Total contributions	376,217	63,023	229,941	730,157	326,528	1,725,866
Investment income:						
Net (depreciation) / appreciation in fair value of investments	604,139	108,457	429,415	60,104	609,308	1,811,423
Dividend income	48,512	8,308	31,364	5,078	-	93,262
Interest income	12,628	2,216	10,534	248	-	25,626
Less: Investment expenses	18,015	3,642	27,530	1,783	-	50,970
Investment income, net	647,264	115,339	443,783	63,647	609,308	1,879,341
Other additions: Loan repayments - interest	0	0	0	0	8,979	8,979
Total additions	1,023,481	178,362	673,724	793,804	944,815	3,614,186
DEDUCTIONS:						
Benefit payments and withdrawals	264,878	157,254	221,221	660,539	-	1,303,892
Implicit rate subsidy payments	-	-	-	69,618	-	69,618
Transfer to other plans	106	-	-	-	98,450	98,556
Distribution to participants	-	-	-	-	107,396	107,396
Administrative expenses	3,408	717	220	200	837	5,382
Other deductions	-	-	-	-	6,789	6,789
Total deductions	268,392	157,971	221,441	730,357	213,472	1,591,633
Net increase (decrease) in fiduciary net position	755,089	20,391	452,283	63,447	731,343	2,022,553
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	$ 3,296,685	$ 414,827	$ 4,489,974	$ 13,820,763

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
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 YEAR ENDED DECEMBER 31, 2019

($ in millions)

Category	Financial Plan Actual	Statement GAAP Actual	Variance
REVENUE:			
Farebox revenue	$ 6,346	$ 6,351	$ 5
Vehicle toll revenue	2,078	2,071	(7)
Other operating revenue	689	621	(68)
Total revenue	9,113	9,043	(70)
OPERATING EXPENSES:			
Labor:			
Payroll	5,334	5,331	(3)
Overtime	978	979	1
Health and welfare	1,342	1,263	(79)
Pensions	1,274	1,511	237
Other fringe benefits	898	848	(50)
Postemployment benefits	2,112	1,613	(499)
Reimbursable overhead	(490)	(497)	(7)
Total labor expenses	11,448	11,048	(400)
Non-labor:			
Electric power	452	444	(8)
Fuel	176	174	(2)
Insurance	7	1	(6)
Claims	418	494	76
Paratransit service contracts	488	477	(11)
Maintenance and other	815	686	(129)
Professional service contract	588	437	(151)
Pollution remediation project costs	6	42	36
Materials and supplies	632	647	15
Other business expenses	229	222	(7)
Total non-labor expenses	3,811	3,624	(187)
Depreciation	2,777	2,870	93
Other expenses adjustment	158	-	(158)
Net expenses related to asset impairment	-	1	1
Total operating expenses	18,194	17,543	(651)
NET OPERATING LOSS	$ (9,081)	$ (8,500)	$ 581

(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 YEAR ENDED DECEMBER 31, 2019

($ in millions)

Accrued Subsidies	Financial Plan Actual	Financial Statement GAAP Actual	Variance	
Mass transportation operating assistance	$ 1,824	$ 1,824	$ -	
Mass transit trust fund subsidies	640	649	9	{1}
Mortgage recording tax 1 and 2	447	468	21	{1}
MRT transfer	(6)	(10)	(4)	{1}
Urban tax	626	641	15	{1}
State and local operating assistance	376	429	53	{1}
Station maintenance	175	171	(4)	{1}
Connecticut Department of Transportation (CDOT)	130	136	6	{1}
Subsidy from New York City for MTA Bus and SIRTOA	622	564	(58)	{1}
Build American Bonds Subsidy	-	89	89	{1}
Mobility tax	2,114	2,133	19	{1}
Assistance Fund (For hire vehicle)	342	375	33	{1}
Real Property Transfer Tax Surcharge (Mansion Tax)	137	74	(63)	{1}
Internet Marketplace Tax	71	85	14	{1}
Transfer to Central Business District Capital Lockbox	(208)	-	208	{1}
Other non-operating income	(3)	(371)	(368)	{2}
Total accrued subsidies	7,287	7,257	(30)	
Net operating deficit before subsidies and debt service	(9,081)	(8,500)	581	
Debt Service	(2,664)	(1,557)	1,107	
Conversion to Cash basis: Depreciation	2,777	-	(2,777)	
Conversion to Cash basis: OPEB Obligation	1,457	-	(1,457)	
Conversion to Cash basis: GASB 68 pension adjustment	(221)	-	221	
Conversion to Cash basis: Pollution & Remediation	6	-	(6)	
Total net operating surplus/(deficit) before appropriations, grants and other receipts restricted for capital projects	$ (439)	$ (2,800)	$ (2,361)	

{1} The Financial Plan records on a cash basis while the Financial Statement records on an accrual basis.
{2} The Financial Plan records do not include other non-operating income or changes in market value.
{3} The Financial Plan records do not include other non-operating subsidy or expense for the refunding of NYS Service Contract Bonds.

(A Component Unit of the State of New York)

SUPPLEMENTARY INFORMATION
SCHEDULE OF FINANCIAL PLAN TO FINANCIAL STATEMENTS RECONCILIATION
RECONCILING ITEMS
FOR THE YEAR ENDED DECEMBER 31, 2019
($ in millions)

Financial Plan Actual Operating Loss at December 31, 2019			**$ (9,081)**
The Financial Plan Actual Includes:			
1	Higher other operating revenues		(70)
2	Higher labor expense primarily from higher OPEB expense projections,		400
3	Higher non-labor expense primarily from higher professional service contracts		187
4	Other expense adjustments		64
Total operating reconciling items			**581**
Financial Statements Operating Loss at December 31, 2019			**(8,500)**
Financial Plan Deficit after Subsidies and Debt Service			**(439)**
The Financial Plan Actual Includes:			
1	Debt service bond principal payments		1,107
2	Adjustments for non-cash liabilities:		
	Depreciation	(2,777)	
	Unfunded OPEB expense	(1,457)	
	Unfunded GASB No. 68 pension adjustment	221	
	Other non-cash liability adjustment	(6)	(4,019)
The Financial Statement includes:			
3	Lower subsidies and other non-operating revenues and expenses		(30)
4	Total operating reconciling items (from above)		581
Financial Statement Loss Before Capital Appropriations			**$ (2,800)**

New York City Transit Authority

(Component Unit of the Metropolitan Transportation Authority)

Financial Statements as of and for the
Years Ended December 31, 2019 and 2018,
Required Supplementary Information, and
Independent Auditors' Report

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NEW YORK CITY TRANSIT AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

TABLE OF CONTENTS

INDEPENDENT AUDITORS' REPORT

To the Members of the Board of
Metropolitan Transportation Authority

Report on the Financial Statements

We have audited the accompanying consolidated financial statements of the business-type activities and the financial statements of the fiduciary activities (collectively, the "financial statements") of the New York City Transit Authority (the "Authority"), a public benefit corporation which is a component unit of the Metropolitan Transportation Authority ("MTA"), as of and for the years ended December 31, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

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

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Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and fiduciary activities of the Authority as of December 31, 2019 and 2018, and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matters

As discussed in Note 1 to the financial statements, the Authority is a component unit of the MTA. The MTA is a component unit of the State of New York. The Authority requires significant subsidies from and has material transactions with MTA, The City of New York and the State of New York. Our opinions are not modified with respect to this matter.

As described in Note 2 to the financial statements, as of January 1, 2018, the Authority adopted Governmental Accounting Standards Board ("GASB") Statement No. 84, *Fiduciary Activities*. Our opinions are not modified with respect to this matter.

Other Matters

Required Supplementary Information

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

May 26, 2020

NEW YORK CITY TRANSIT AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018

FINANCIAL REPORTING ENTITY

The New York City Transit Authority (NYCTA) and its component unit, Manhattan and Bronx Surface Transit Operating Authority (MaBSTOA) (collectively, the Authority) are public benefit corporations established pursuant to the New York State (the State) Public Authorities Law, to operate public subway, bus and paratransit services within The City of New York (The City). The Authority is a component unit of the Metropolitan Transportation Authority (MTA), which is a component unit of the State, and 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 Reporting entity includes:

(1) the Primary Government which is comprised of NYCTA, a special purpose government, and its blended Component Unit MaBSTOA, together providing transportation services to New York City. The Primary Government engages in Business-Type Activities.

(2) a Fiduciary Fund comprised of the MaBSTOA Pension Plan.

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

OVERVIEW OF THE CONSOLIDATED FINANCIAL STATEMENTS

Introduction to the Annual Report:

This annual report consists of five parts: Management's Discussion and Analysis, Consolidated Financial Statements, Fiduciary Fund Financial Statements, Notes to the Consolidated Financial Statements, and Required Supplementary Information.

Management's Discussion and Analysis:

The following is a narrative overview and analysis of the financial activities of the Authority for the years ended December 31, 2019 and 2018. This management discussion and analysis (MD&A) is intended to serve as an introduction to the Authority's basic consolidated financial statements. It provides an assessment of how the Authority's position has improved or deteriorated and identifies the factors that, in management's view, significantly affected the Authority's overall financial position. It may contain opinions, assumptions or conclusions by the Authority's management that should not be considered a replacement for, and must be read in conjunction with, the consolidated financial statements described below.

The Consolidated Financial Statements:

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

The Consolidated Statements of Revenues, Expenses and Changes in Net Position show how the Authority's net position changed during each year. They account for all of the current year's revenues and expenses, measures the financial results of the Authority's operations over the past year and can be used to determine how the Authority has funded its costs.

The Consolidated Statements of Cash Flows provide information about the Authority's cash receipts, cash payments and net changes in cash resulting from operations, non-capital financing, capital and related financing and investing activities.

The Fiduciary Fund Financial Statements:

The Fiduciary fund is used to account for resources held in a trustee capacity for the benefit of parties outside of a government entity. The Fiduciary fund is not reported in the Authority's financial statements because the resources of that fund are not available to support Authority's own programs. The fiduciary fund is reported as a Pension Fund.

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

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

The Notes to the Consolidated Financial Statements:

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

Required Supplementation Information:

The Required Supplementary Information provides information concerning the Authority's net pension liability and net other postemployment benefits (OPEB) liability, employer contributions for the pension plans and OPEB, related ratios and actuarial assumptions used to calculate the net pension liability and net OPEB liability.

CONDENSED FINANCIAL INFORMATION

All amounts are in millions, except as noted.

The following sections will discuss the significant changes in the Authority's financial position for the years ended December 31, 2019 and 2018. Additionally, an examination 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, summaries of the consolidated financial statements and the various exhibits presented conform to the Authority's consolidated financial statements, which are presented in accordance with generally accepted accounting principles in the United States of America.

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

(In millions)	2019	2018	2017	Increase/(Decrease) 2019-2018	Increase/(Decrease) 2018-2017
Capital assets	$69,980	$66,465	$63,507	$ 3,515	$ 2,958
Accumulated depreciation	(24,657)	(23,270)	(22,190)	(1,387)	(1,080)
Capital assets, net of accumulated depreciation	45,323	43,195	41,317	2,128	1,878
Other assets	2,024	2,260	2,470	(236)	(210)
Total assets	47,347	45,455	43,787	1,892	1,668
Deferred outflows of resources	2,323	1,738	1,018	585	720
Total assets and deferred outflows of resources	$49,670	$47,193	$44,805	$ 2,477	$ 2,388

The Authority's capital assets totaled $69,980 at December 31, 2019. Of the total, depots, yards, signals, and stations were 50.0%, subway cars and buses accounted for 18.0% and track and structures were 20.7%. These gross capital assets exclude significant infrastructure assets such as tunnels and elevated structures, which are assets owned by The City. More detailed information about the Authority's capital assets is presented in Note 5 to the consolidated financial statements.

Significant changes in assets include:

December 31, 2019 versus 2018

Capital assets increased from December 31, 2018 to December 31, 2019 by $3,515 or 5.3%. This increase was primarily due to station rehabilitation work of $1,575, signals work of $764, and track and structure of $711. Accumulated depreciation has increased by $1,387, or 6.0%, due to annual depreciation expense of $1,994, partly offset by normal retirements of $607.

Other assets decreased by $236 or 10.4% compared with the prior year. This decrease was mostly due to a decrease in MTA investment pool of $184 related to operational work requirement, a decrease in receivables from the MTA for the purchase of capital assets of $72, partly offset by an increase in billed and unbilled charges due from New York City of $41 due to timing of payment at year-end related to paratransit reimbursement.

Deferred outflows of resources increased $585 or 33.7% compared with the prior year. The net increase was due to an increase of $614 related to pensions based upon the most recent actuarial valuation report in accordance with GASB Statements No. 68, *Accounting and Financial Reporting for Pensions,* and GASB No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date,* offset by a decrease of $28 related to OPEB, also based upon the most recent actuarial valuation report in accordance with GASB No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions.* Refer to Note 6 and 7 to the consolidated financial statements for more information regarding the Authority's pensions and postemployment benefits other than pension, respectively.

December 31, 2018 versus 2017

Capital assets increased from December 31, 2017 to December 31, 2018 by $2,958 or 4.7%. This increase was primarily due to station rehabilitation work of $1,170 and signals work of $1,073. Accumulated depreciation has increased by $1,080, or 4.9%, due to annual depreciation expense of $1,833, partly offset by normal retirements of $128 related to buses and other capital assets, and $625 related to disposal of subway cars as result of reviewing the current fleet of cars.

Other assets decreased by $210 or 8.5% compared with the prior year. This decrease was mostly due to a decrease in receivables from the MTA for the purchase of capital assets of $245.

Deferred outflows of resources increased $720 or 70.7% compared with the prior year. The net increase was primarily due to an increase of $1,012 related to OPEB resulting from the adoption of GASB Statement No. 75, partially offset by a decrease of $292 related to pensions based upon the most current actuarial valuation report in accordance with GASB Statements No. 68 and GASB No. 71. Refer to Notes 6 and 7 to the consolidated financial statements for more information regarding the Authority's pensions and postemployment benefits other than pension, respectively.

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

				Increase/(Decrease)	
(In millions)	**2019**	**2018**	**2017**	**2019-2018**	**2018-2017**
Current liabilities	$ 1,974	$ 1,900	$ 1,875	$ 74	$ 25
Long-term liabilities	21,867	21,609	21,390	258	219
Total liabilities	23,841	23,509	23,265	332	244
Deferred inflows of resources	1,855	759	392	1,096	367
Total liabilities and deferred inflows of resources	$ 25,696	$24,268	$23,657	$ 1,428	$ 611

At the end of 2019, the Authority's liabilities consisted primarily of employee fringe benefit-related liabilities (for retirement, health and other benefits) of 59.0%, net pension liability of 22.1%, and injuries to persons (public liability and workers' compensation) of 13.9%. Included in the employee fringe benefit-related liabilities was $13,281 of post-employment benefits other than pensions.

Significant changes in liabilities include:

December 31, 2019 versus 2018

Liabilities increased from December 31, 2018 to December 31, 2019 by $332 or 1.4%. Current liabilities increased by $74, or 3.9%, and long-term liabilities increased by $258 or 1.2%.

The net increase in current liabilities was mainly due to higher salaries, wages and payroll taxes of $24, due to general salary increases and retroactive wage reserves, an increase in estimated liability arising from injuries to persons of $23, based upon an updated actuarial valuation, and an increase in revenue advances of $17 mainly related to the prepayment of school fare reimbursement from The City.

The net increase in long-term liabilities was primarily due to the addition of $546 of net pension liability, a $204 increase in the estimated liability arising from injuries to persons, and a decrease in net OPEB liability of $503, based upon the most current actuarial valuations.

Deferred inflows of resources increased by $1,096 or 144.4% compared with prior year. The increase was due to an increase of $1,053 related to OPEB based upon the most current actuarial valuation report in accordance with GASB Statement No. 75, and an increase of $43 related to pensions based upon the most current actuarial valuation report in accordance with GASB Statements No. 68 and GASB No. 71. Refer to Notes 6 and 7 to the consolidated financial statements for more information regarding the Authority's pensions and postemployment benefits other than pension, respectively.

December 31, 2018 versus 2017

Liabilities increased from December 31, 2017 to December 31, 2018 by $244 or 1.0%. Current liabilities increased by $25, or 1.3%, and long-term liabilities increased by $219 or 1.0%.

The net increase in current liabilities was mainly due to higher salaries, wages and payroll taxes of $19, due to wage and headcount increases and an increase in estimated liability arising from injuries to persons of $19, based upon an updated actuarial valuation. The increase was partly offset by lower levels of accounts payable in connection with various maintenance initiatives, including the Subway Action Plan, of $18, and a decrease in revenue advances of $16 due to timing of receipts at year end.

The net increase in long-term liabilities was primarily due to the addition of $886 of net OPEB liability resulting from the adoption of GASB Statement No. 75, a $267 increase in the estimated liability arising from injuries to persons, and a decrease in net pension liability of $982, based upon the most current actuarial valuations.

Deferred inflows of resources increased by $367 or 93.6% compared with prior year. The increase was primarily due to an increase of $14 related to OPEB resulting from the adoption of GASB Statement No. 75, and an increase of $353 related to pensions based upon the most current actuarial valuation report in accordance with GASB Statements No. 68 and GASB No. 71. Refer to Notes 6 and 7 to the consolidated financial statements for more information regarding the Authority's pensions and postemployment benefits other than pension, respectively.

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

				Increase/(Decrease)	
(In millions)	**2019**	**2018**	**2017**	**2019-2018**	**2018-2017**
Net investment in capital assets	$ 45,144	$ 43,018	$ 41,144	$ 2,126	$ 1,874
Unrestricted	(21,170)	(20,093)	(19,996)	(1,077)	(97)
Total net position	$ 23,974	$ 22,925	$ 21,148	$ 1,049	$ 1,777

Net position represents the residual interest in the Authority's assets after liabilities are deducted and consist of three components: net investment in capital assets, restricted and unrestricted. Net investment in capital assets include capital assets, net of accumulated depreciation and outstanding principal balances of debt attributable to the acquisition, construction or improvement of those assets. Net position is reported as restricted when constraints are imposed by third parties or enabling legislation. All other net position are unrestricted.

December 31, 2019 versus 2018

Total net position was $23,974 at the end of 2019, a net increase of $1,049, or 4.6% from the end of 2018. The net increase was primarily due to an operating loss of $6,372 offset by net nonoperating income of $4,248 and capital contributions from the MTA of $3,173.

December 31, 2018 versus 2017

Total net position was $22,925 at the end of 2018, a net increase of $1,777, or 8.4% from the end of 2017. The net increase was primarily due to an operating loss of $5,911 offset by net nonoperating income of $4,230, capital contributions from the MTA of $2,652, and a restatement of beginning net position of $806 related to the adoption of GASB Statement No. 75 (see Note 2 to the consolidated financial statements).

Condensed Statements of Revenues, Expenses, and Changes in Net Position

	Year Ended December 31,			Increase/(Decrease)	
(In millions)	**2019**	**2018**	**2017**	**2019-2018**	**2018-2017**
Operating revenues	$ 5,061	$ 4,893	$ 4,912	$ 168	$ (19)
Operating expenses	(11,433)	(10,804)	(10,703)	(629)	(101)
Operating loss	(6,372)	(5,911)	(5,791)	(461)	(120)
Nonoperating revenues (expenses):					
Subsidies: New York State and The City of New York	3,920	4,072	3,345	(152)	727
Triborough Bridge and Tunnel Authority	334	290	310	44	(20)
Interest expense	(18)	(17)	(16)	(1)	(1)
Other nonoperating revenue/(expenses)	12	10	5	2	5
Loss on disposal of subway cars	-	(125)	-	125	(125)
Total nonoperating revenues (expenses)	4,248	4,230	3,644	18	586
Loss before capital contributions	(2,124)	(1,681)	(2,147)	(443)	466
Capital contributions	3,173	2,652	1,860	521	792
Change in net position	1,049	971	(287)	78	1,258
Net position — beginning of year	22,925	21,148	21,435	1,777	(287)
Restatement of beginning net position — adoption of GASB No. 75	-	806	-	(806)	806
Net position — end of year	$ 23,974	$ 22,925	$ 21,148	$ 1,049	$ 1,777

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Revenue from Fares/Ridership

(In millions)	2019	2018	2017	Increase/(Decrease) 2019-2018	Increase/(Decrease) 2018-2017
Subway revenue	$ 3,570	$3,427	$3,441	$ 143	$ (14)
Bus revenue	936	929	952	7	(23)
Expired fare media revenue	64	70	76	(6)	(6)
Paratransit revenue	23	21	18	2	3
Total revenue from fares	$ 4,593	$4,447	$4,487	$ 146	$ (40)
Total ridership (millions)	2,266	2,259	2,339	7	(80)
Non-student average fare	$ 2.09	$ 2.03	$ 1.98	$ 0.06	$ 0.05

2019 versus 2018

Total revenue from fares was $4,593 in 2019, an increase of $146, or 3.3%, due mostly to the March 2019 fare increase. Total ridership was 2,266, a slight increase of 7, or 0.3% from 2018.

2018 versus 2017

Total revenue from fares was $4,447 in 2018, a decrease of $40, or 0.9%, due mostly to lower ridership trends. Total ridership was 2,259, a decrease of 80, or 3.4% from 2017.

Operating Expenses, by Major Function

(In millions)	2019	2018	2017	Increase/(Decrease) 2019-2018	Increase/(Decrease) 2018-2017
Salaries and wages	$ 4,082	$ 4,107	$ 3,901	$ (25)	$ 206
Health and welfare	923	836	860	87	(24)
Pensions	1,042	599	706	443	(107)
Other fringe benefits	458	489	410	(31)	79
Reimbursed overhead expenses	(295)	(347)	(304)	52	(43)
Postemployment benefits other than pensions	1,099	1,170	1,516	(71)	(346)
Electric Power	278	301	265	(23)	36
Fuel	107	112	95	(5)	17
Insurance	70	67	72	3	(5)
Public liability claims	255	226	279	29	(53)
Paratransit service contracts	477	455	393	22	62
Maintenance and other operating contracts	284	234	246	50	(12)
Professional service contracts	191	197	172	(6)	25
Pollution remediation projects	28	84	8	(56)	76
Materials and supplies	342	353	319	(11)	34
Depreciation	1,994	1,833	1,682	161	151
Other expenses	98	88	83	10	5
Total operating expenses	$11,433	$10,804	$10,703	$ 629	$ 101

2019 versus 2018

Total operating expenses increased by $629 or 5.8% compared to 2018 as follows:

- Salaries and wages were lower than 2018 by $25 or 0.6%. Payroll increased by $60, or 1.7%, mainly due to general wage increases. Overtime expenses decreased by $84, or 12.3%, due mostly to a reduction of emergency requirements related to Subway Action Plan.

- Health and welfare expenses increased by $87, or 10.4%, due primarily to an increase in health and hospital claims.

- Pension expenses increased by $443, or 74.0%, based on the most current actuarial valuation, including adjustment to the New York City Employees' Retirement System (NYCERS) census data recognized as pension expense in 2019.

- Other fringe benefit expenses decreased by $31, or 6.3%, due primarily to lower workers' compensation medical reserve requirements from 2018, based upon a current actuarial valuation.

- Post-employment benefits other than pensions decreased by $71, or 6.1%, based on the most current actuarial valuation.

- Electric power expenses decreased by $23, or 7.6% due to lower prices.

- Public liability claims expenses increased by $29, or 12.8%, based on the most current actuarial valuation update, which reflected the increase in major claims.

- Paratransit service contract expenses increased by $22 or 4.8%, due to continued growth in trips.

- Maintenance and other operating contracts increased by $50 or 21.4%, mainly due to Subways Deep Cleaning initiatives and purchases related to paratransit projects.

- Pollution remediation project expenses significantly decreased to $28 compared to $84 in 2018, due to a decrease in new areas of exposure requiring environmental remediation in 2019.

- Depreciation expenses increase by $161, or 8.8%, due to additional capital projects reaching substantial completion and starting depreciation.

2018 versus 2017

Total operating expenses increased by $101 or 0.9% compared to 2017 as follows:

- Salaries and wages were higher than 2017 by $206 or 5.3%. Payroll increased by $114, or 3.4%, as most represented and non-represented personnel received wage increases in 2018 and headcount increased. Overtime expenses increased by $92, or 15.5%, due mostly to support Subway Action Plan requirements.

- Health and welfare expenses decreased by $24, or 2.8%, due primarily to decreased rates for health and welfare plans as a result of credits received from one of the main health care providers.

- Pension expenses decreased by $107, or 15.2%, based on the most current actuarial valuation.

- Other fringe benefit expenses increased by $79, or 19.3%, due primarily to higher workers' compensation reserve requirements from 2017, based upon a current actuarial valuation.

- Post-employment benefits other than pensions decreased by $346, or 22.8%, resulting from the adoption of GASB Statement No. 75.

- Electric power expenses increased by $36, or 13.6% due to higher prices.

- Fuel expenses increased by $17, or 17.9%, due mostly to higher prices and consumption.

- Public liability claims expenses decreased by $53, or 19.0%, based on the most current actuarial valuation update.

- Paratransit service contract expenses increased by $62, or 15.8%, due to growth in advance reservation E-Hail services.

- Pollution remediation project expenses significantly increased to $84 versus $8 in 2017, due to the identification of additional areas of exposure requiring corrective work requirements.

- Depreciation expenses increase by $151, or 9.0%, due to additional assets reaching beneficial use.

Nonoperating Revenues and Expenses

The Authority receives a variety of tax-supported subsidies from New York State and The City of New York. These subsidies represent a State Mobility Tax and corporate franchise, sales, energy, mortgage recording and real estate taxes and are impacted by the strength of the State and City economies and prevailing interest rates.

Operating assistance subsidies from New York State and The City have been maintained at the same level each year.

The Triborough Bridge & Tunnel Authority, another affiliate of the MTA, distributes to the Authority, each year, funds that vary based upon its operating surplus.

Capital contributions from the MTA of $3,173 in 2019 and $2,652 in 2018, represent capital program funding from several sources including bonds, Federal, State and City funding.

Changes in Net Position

The change in net position represents the net total of capital contributions, operating losses and nonoperating income. The net position increased by $1,049 in 2019.

Budget Highlights

Total operating revenues in 2019 of $5,061, were higher than budget by $44, or 0.9%. Total revenue from fares exceeded budget by $56, or 1.2%, which included higher subway revenue of $65, million or 1.9% and bus revenue of $4.7 million (0.5 percent). These results reflect a significant improvement in the ridership trend, particularly in subways, partially offset by fare media liability that underran the budget by $14, or 18.1%. Other operating revenues were lower than budget by $12, or 2.5%.

Total operating expenses in 2019 of $11,433 were higher than budget by $49, or 0.4%. Labor-related expenses of $6,757 overran the budget by $126, or 1.9%. This result was due primarily to overtime expenses that were higher than budget by $126, or 26.5%, caused primarily by Subway Action Plan requirements of $49, and vacancy coverage. Pension expenses exceeded budget by $121, or 12.8%, due to a major adjustment in the NYCERS actuarial valuation, and health and welfare and OPEB current expenses were under Budget by $95, or 6.6%, due mostly to lower operating employee medical expenses. Non-labor expenses underran the budget due to maintenance contract expense that underran budget by $83, or 22.6%, due to reallocation of the Subway Action Plan expense provision to in-house labor for track, signals, infrastructure, station maintenance and car equipment SAP initiatives, mainly utilizing overtime.

OVERALL FINANCIAL POSITION, RESULTS OF OPERATIONS AND IMPORTANT ECONOMIC CONDITIONS

Results of Operations and Overall Financial Position

Total revenue from fares was $4,593 in 2019, an increase of $146 or 3.3% from 2018. Total ridership was 2,266 million, an increase of $7 or 0.3% from 2018. Total operating expenses, including depreciation, other post-employment benefits and environmental remediation expenses, were $11,433 in 2019, an increase of $629 or 5.8%.

Going forward, the stability of the Authority's financial position is subject to certain risks, requiring the efficient management of costs, including the establishment of new cost reduction programs, in order to counteract any adverse impacts to revenue streams or cost increases.

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. New York City Transit (NYCT) consists of urban subway and bus systems, including paratransit services.

Preliminary NYCT system-wide utilization in 2019 increased by a net 6.5 million trips (0.3%) relative to 2018, reflecting an increase in Subway ridership of 17.7 million trips (1.1%), partly offset by a decrease in Bus ridership of 12.3 million trips (2.2%). The Subway ridership increase represented a significant turnaround, following three consecutive years of declining ridership, and despite a fare increase in March 2019. Leadership attributes the increase to the major improvement in subway service quality, notably, significantly improved on-time performance and a reduction in service disruptions following completion of major Subway Action Plan initiatives by year-end 2018. The decline in bus ridership is consistent with a trend that began in 2009 and has been observed nationally, mainly due to trips shifting to for-hire vehicles and increases in fare evasion. 2019 Paratransit ridership increased by 1.1 million trips (10.6%) from 2018, reflecting continued growth in E-Hail and enhanced broker services.

Seasonally adjusted non-agricultural employment in New York City for the fourth quarter was higher in 2019 than in 2018 by 79.5 thousand jobs (1.7%).On a quarter-to-quarter basis, New York City employment increased 32.7 thousand jobs, increasing for thirty-seventh consecutive quarter—the last decline occurred in the third quarter of 2010—and was higher than at any time since 1950, when non-agricultural employment levels for New York City were first recorded by the Bureau of Labor Statistics.

National economic growth, as measured by Real Gross Domestic Product (RGDP), expanded at an annualized rate of 2.1% in the fourth quarter of 2019, according to the most recent advance estimate released by the Bureau of Economic Analysis (BEA). The increase in RGDP reflected increases in consumer spending, government spending, exports, and housing investment, which were partially offset by decreases in inventory investment and business investment. Imports, a subtraction in the calculation of GDP, decreased. The increase in consumer spending reflected increases in goods (led by motor vehicles and parts) and services (led by health care). The increase in government spending reflected increases at the federal, as well as state and local, government levels. The decline in inventory investment reflected a decrease in retail trade inventories (led by motor vehicle dealers), while the decline in business investment reflected a decrease in equipment (led by industrial equipment) and structures (led by mining exploration, shafts, and wells).In the third quarter, the annualized RGDP rate was also 2.1 percent.

The New York City metropolitan area's price inflation, as measured by the Consumer Price Index for All Urban Consumers (CPI-U), was lower than the national average in the fourth quarter of 2019, with the metropolitan area index increasing 1.84% while the national index increased 2.03%, when compared with the fourth quarter of 2018.Decreases in both the regional and national price of energy products (2.52% for the region, and 0.56% nationally) contributed to the low inflation rates; in the metropolitan area, the CPI-U exclusive of energy products increased by 2.15%, while nationally, inflation exclusive of energy products increased 2.25%. However, the spot price for New York Harbor conventional gasoline increased by 1.2%, from an average price of $1.70 per gallon to an average price of $1.72 per gallon between the fourth quarters of 2018 and 2019.

The Federal Open Market Committee (FOMC) lowered its target for the Federal Funds rate during the fourth quarter of 2019, by a quarter point on October 31, 2019 to the target range of 1.50% to 1.75%. Job gains have been solid, on average, in recent months, and the unemployment rate has remained low. Although household spending has been rising at a strong pace, business fixed investment and exports remain weak. On a twelve-month basis, overall inflation and inflation for items other than food and energy are running below 2 percent, and market-based measures of inflation compensation remain low and survey-based measures of longer-term inflation expectations are little changed. The target rate reduction supports the FOMC's view that sustained expansion of economic activity, strong labor market conditions and inflation near the FOMC's 2 percent objective remain the most likely outcomes, but uncertainties remain. The FOMC indicated that the timing and size of future adjustments to the target range would consider realized and expected economic conditions relative to its maximum employment objective and its 2 percent inflation objective, including measures of labor market conditions, indicators of inflation and inflation expectations, and financial and international developments.

SIGNIFICANT CAPITAL ASSET ACTIVITY

Capital Program

The MTA has ongoing programs on behalf of the Authority and other affiliated agencies, 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.

2000-2004 Capital Program — The 2000-2004 Capital Program, which was approved by the State Review Board in May 2000, provided for $17.1 billion in capital expenditures, of which the Authority's portion was $10.3 billion. In May and December of 2002, the MTA Board approved amendments to the program reflecting changes to budgets, schedules, funding and added to the infrastructure and facilities security programs. In December 2003, the MTA Board approved a general update to the plan to incorporate changes and authorized its submission to the MTA Capital Program Review Board (CPRB). In January 2004, the MTA Board approved a further modification to that program to support the accelerated purchase of additional commuter railcars. In December 2004, the MTA Board approved an amendment that incorporated the creation of the MTA Bus Company, and included additional funding from The City for the #7 Extension design work, as well as additional security grant funding. In December 2005, the MTA Board approved an amendment that increased the overall capital program total to $19.9 billion, of which the Authority's share was $10.2 billion.

This amendment included additional federal funds for the Fulton Street Transit Center, South Ferry Station, a new Bus Depot on Staten Island and CCTV installation in NYCT stations. In December 2006, the MTA Board approved an amendment that increased the overall capital program total to $21.2 billion, of which the Authority's share was increased to $10.3 billion. In 2009, the capital program received $0.2 billion in federal stimulus funding. Reallocation between programs resulted in an additional $0.5 billion to the 2000-2004 Capital Program, increasing the overall total plan to $21.7 billion, of which the Authority's share is $10.4 billion. Among the projects included in the 2000-2004 Transit Capital Program and subsequent amendments are the following: rebuilding the 1/9 line track and structures destroyed by the September 11, 2001 attacks on the World Trade Center, design and initiation of construction of the full-length Second Avenue Subway, acquisition of 1,210 new subway cars, replacing 927 existing cars and expanding the fleet by 283 cars, acquisition of 985 new buses, including 135 CNG buses, rehabilitation of 70 stations, provision of full Americans with Disability Act (ADA) accessibility at 23 stations, replacement of 20 escalators at various stations, replacement of approximately 42 miles of mainline track and 212 mainline switches, signal modernization, communications improvements, and improvements to shops, yards, and depots.

The combined funding sources for the 2000-2004 Capital Program are comprised of $7.4 billion in bonds, $7.4 billion in federal funds, $4.6 billion from debt restructuring, and $2.3 billion from other sources.

As part of the 2000-2004 Capital Program, the MTA, the TBTA and the Authority have refunded and defeased substantially all of their outstanding debt and consolidated most of their existing credits.

At December 31, 2019, $10.4 billion has been encumbered to Authority projects from the 2000-2004 approved plan, of which approximately $10.3 billion has been expended.

2005-2009 Capital Program — The MTA Capital Program for 2005-2009 was approved by the CPRB in July 2005 and amended in July 2006. The 2005-2009 Program, as approved, provided for $20.1 billion in capital expenditures, of which the Authority's share was $11.2 billion. In February 2007, the MTA Board further amended the Program to add $1.2 billion of Federal East Side Access Full Funding Grant Agreement (FFGA) funds to the East Side Access project, which relates to the Capital Construction Company's capital program. In July 2008, the MTA Board further amended the Program to add an additional $267 million of Federal East Side Access FFGA funds and $764 million in Federal Second Avenue Subway FFGA funds relating to the Capital Construction Company's capital program. Also included in this amendment were the rollover of unused LaGuardia Airport Project funds from the 2000-2004 Capital Program and other miscellaneous funding adjustments. In 2009, the capital program received $0.7 billion in federal stimulus funding. In 2011, the program received $0.2 billion in HYIC funds to cover the full value of additional work associated with the Number 7 Extension.

The 2005-2009 Capital Program is designed to continue a program of capital expenditures that would support on-going maintenance and provide needed improvements to enhance services to its customers. Reallocation between programs, subsequent to the amendments and federal stimulus funding noted above, resulted in the overall plan totaling $24.4 billion, of which the Authority's share is $11.5 billion. The Authority's portion of the capital program excludes $7.7 billion of approved capital projects managed by the MTA Capital Construction Company on behalf of the Transit Authority and the Long Island Rail Road. Among the projects in the 2005-2009 Transit Capital Program are the following: normal replacement of 1,002 B Division Cars, fleet growth of 23 A Division Cars, the purchase of 1,236 new buses including 1,043 standard, 90 articulated and 103 express buses, the purchase of 1,387 new paratransit vehicles, rehabilitation of 36 stations, replacement of 23 escalators, replacement of 52 miles of mainline track and 143 mainline switches, signal modernization, communications improvements, and improvements to shops, yards, and depots.

The combined funding sources for the 2005-2009 Capital Program are comprised of $7.8 billion in federal funds, $1.5 billion from the New York State voter approved State-Wide Transportation Bond Act, $11.0 billion in bonds, and $4.1 billion from other sources.

At December 31, 2019, $11.5 billion has been encumbered to Authority projects from the 2005-2009 approved plan, of which approximately $11.3 billion has been expended.

2010-2014 Capital Program — The 2010-2014 Capital Program was approved by the MTA Board in September 2009. The program totaling approximately $25.6 billion was subsequently submitted to the NYS Capital Program Review Board (CPRB) for their review and approval. The submitted Program was vetoed without prejudice by the Review Board in December 2009. Subsequently, the resubmitted 2010-2014 Program, totaling $26.3 billion was approved by the MTA Board in April 2010. In June 2010, the CPRB approved the 2010-2014 Capital Program totaling $23.8 billion, as submitted, of which the Authority's share was $12.8 billion. The approved CPRB program fully funded only the first two years of the plan, with a commitment to come back to CPRB with a funding proposal for the last three years. On December 21, 2011, the MTA Board approved an amendment to the 2010-2014 Program that funds the last three years of the program through a combination of self-help (efficiency improvements and real estate initiatives), participation by our funding providers and innovative and pragmatic financing arrangements. The Authority's share of the $24.3 billion revised program was $11.6 billion. On March 27, 2012, the CPRB approved the amended 2010-2014 Capital Program as submitted for the Transit and Commuter systems totaling $22.2 billion. On December 19, 2012, the MTA Board approved an amendment to the 2010-2014 Capital Programs to add projects for the repair and restoration of MTA agency assets damaged as a result of Tropical Storm Sandy, which struck the region on October 29, 2012. The revised programs provide for an additional $4.8 billion in Sandy recovery-related capital expenditures, of which the Authority's share is $3.4 billion. On January 23, 2013, the amended program for the Transit and Commuter systems totaling $26.2 billion as submitted was deemed approved by the CPRB. On July 24, 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, totaling $5.8 billion in response to Tropical Storm Sandy. The Authority's share of the new initiative is $5.1 billion. On August 26, 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 the 2010-2014 Capital Programs to reflect revised project estimates. However, the overall program remained unchanged at $34.8 billion. On September 3, 2014, the amended program for the Transit and Commuter systems totaling $31.8 billion as submitted was deemed approved by the CPRB. On May 24, 2017, the MTA Board approved a further amendment to reduce the overall 2010-2014 capital program by $2.8 billion. The reduction reflects adjustments to the Sandy program to match funding and administrative scope transfers for projects in the Core program. On July 31, 2017, the amended program for the Transit and Commuter systems totaling $29.2 billion as submitted was deemed approved by the CPRB. On September 25, 2019, the MTA Board approved an amendment to the overall 2010-2014 capital program totaling $31.7 billion reflecting administrative budget adjustments and updated project cost and timing assumptions. The Transit and Commuter systems' portion of the amended program totaled $28.9 billion.

The combined funding sources for the last MTA Board approved 2010-2014 Capital Program are comprised of $11.6 billion in MTA bonds, $7.4 billion in federal funds, $2.0 billion in Bridges and Tunnels dedicated funds, $0.1 billion in MTA Bus Federal and City Match, $0.8 billion in State Assistance, $0.7 billion in City Capital Funds, and $1.3 billion from other sources. The funding strategy for Tropical Storm Sandy repair and restoration assumes the receipt of $6.7 billion in insurance and federal reimbursement proceeds (including interim borrowing by MTA to cover delays in the receipt of such proceeds), $0.02 billion in Pay-as-you-go capital, supplemented, to the extent necessary, by external borrowing of up to $1.0 billion in additional MTA and MTA Bridges and Tunnels bonds.

At December 31, 2019, $11.1 billion has been encumbered to Authority projects from the 2010-2014 approved plan, of which approximately $10.3 billion has been expended.

2015-2019 Capital Program — the 2015-2019 Capital Program totaling $32.0 billion was approved by the MTA Board in September 2014. The program totaling approximately $29.0 billion was subsequently submitted to the CPRB for their review and was vetoed without prejudice by the Review Board in October 2014. On October 28, 2015, the MTA Board approved a revised 2015-2019 capital program totaling $26.1 billion. The revised 2015-2019 MTA Bridges and Tunnels Capital Program totaling $2.9 billion was approved by the MTA Board in October 2015 and was not subject to CPRB approval. On April 20, 2016, the MTA Board approved a further revised 2015-2019 capital program totaling $29.5 billion, of which $26.6 billion was subsequently approved by the CPRB on May 23, 2016 (The MTA Bridges and Tunnels 2015-2019 Capital Program totaling $2.9 billion is not subject to CPRB approval.). The Authority's share of the approved 2015-2019 capital program was $15.8 billion. On February 23, 2017, the MTA Board approved an amendment to add three station investment projects to the NYCT and LIRR portions of the Capital Program resulting in a net increase of $0.1 billion transferred from prior capital programs. On May 24, 2017, the MTA Board approved further amendment, adding $2.9 billion to the 2015-2019 Capital Program reflecting increasing support for new priority projects, new funding for Second Avenue Subway Phase 2, and administrative scope transfers. The amended Capital Program, as submitted, was deemed approved by the CPRB on July 31, 2017. On December 13, 2017, the MTA Board approved an amendment to the Capital Program, adding $0.349 billion to incorporate the NYC Subway Action Plan. The Authority's share of the amended 2015-2019 capital program totaling $32.8 billion is $16.7 billion. On April 25, 2018, the MTA Board approved a full amendment to increase the 2015-2019 Capital Programs to $33.3 billion reflecting updated project cost estimates, emerging new needs across the agencies, and reallocation of funds within the East Side Access and Regional Investment programs, among others. On June 1, 2018, the CPRB deemed approved the revised 2015-2019 Capital Programs for the Transit and Commuter systems totaling $30.3 billion as submitted. The Authority's share of the amended capital program was $16.7 billion. The revised 2015-2019 MTA Bridges and Tunnels Capital Program totaling $2.9 billion as approved by the MTA Board in April 2018, was not subject to CPRB approval.

In the 2015-2019 Capital Program, NYC Transit continues normal replacement of key assets like rolling stock and mainline track/switches while also emphasizing overdue investments in signals and other infrastructure. Stations continue to be an important focus of investment given the importance of the station environment to NYC Transit's customers and their communities. Core infrastructure investments include: modernization of six interlockings; the purchase of 535 railcars to replace railcars reaching the end of their useful lives; 1,441 new buses, including 1,086 standard, 305 articulated and 50 express buses; replacement of approximately 51 miles of mainline track and 127 mainline switches; communications improvements and improvements to shops, yards, and depots; ADA accessibility improvements; completion of the new fare payment system; elimination of station defects; substantial access and circulation improvements at the Grand Central and Times Square stations. On September 25, 2019, the MTA Board approved a full amendment to the 2015-2019 Capital Programs totaling $33.9 billion, reflecting updated project timing and cost estimates, new needs, and changing priorities.

The combined funding sources for the last MTA Board approved 2015-2019 Capital Program are comprised of $8.4 billion in MTA Bonds, $2.9 billion in MTA Bridges and Tunnels dedicated funds, $9.1 billion in funding from the State of New York, $7.4 billion in Federal Funds, $2.7 billion from City Capital Funds, $2.1 billion in pay-as-you-go (PAYGO) capital, and $1.2 billion from Other Sources.

At December 31, 2019, $13 billion has been encumbered to Authority projects from the 2015-2019 approved plan, of which approximately $6.5 billion has been expended.

2020-2024 Capital Program – the 2020-2024 Capital program totaling $54.8 was approved by the MTA Board on September 25, 2019. The capital programs for the transit and commuter systems totaling $51.5 billion was subsequently submitted to the CPRB on October 1, 2019 and approved on January 1, 2020. The 2020-2024 MTA Bridges and Tunnels Capital Program totaling $3.3 billion 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 billion in Central Business District tolling sources, $10 billion in new revenue sources, $9.8 billion in MTA bonds, $3.3 billion in MTA Bridges and Tunnels bonds, $10.7 billion in Federal funds, $3 billion in State of New York funding, and $3 billion in City of New York funding.

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 operation.

CURRENTLY KNOWN FACTS, DECISIONS, OR CONDITIONS

Going forward, the Authority's February 2020 Financial Plan includes certain risks such as:

- Biennial fare increases approximating inflation.
- Achieving efficiencies/consolidations.
- Implementation of Congestion Zone Surcharges.
- 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 initial impact of social distancing and Governor Cuomo's PAUSE Executive Order 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 have occurred at an accelerating pace. The steep fall in both ridership and vehicle volume reflects the initial impact of social distancing and subsequent State governmental orders limiting non-essential activities caused by the COVID-19 pandemic. There remains a high risk for further reductions in ridership and traffic.
  - Beginning May 6, 2020, there will be no subway service from 1 - 5 a.m. daily, as all NYCTA stations will close for deep cleaning and disinfecting.
  - While we cannot estimate the duration of the pandemic and the reduced use of MTA services, if the current levels are sustained for six months, and then followed by a gradual six-month return to pre-pandemic ridership and traffic levels, the full 2020 financial impact of the COVID-19 crisis to the MTA is projected to be between $7.0 and $8.5 billion.
  - A combination of the pandemic crisis and delays in Washington could delay the January 2021 launch of congestion pricing.

  Refer to Note 17 to the consolidated financial statements for more information regarding the assessed impact from COVID-19 pandemic on the Authority's finances and operations.

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NEW YORK CITY TRANSIT AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

CONSOLIDATED STATEMENTS OF NET POSITION
DECEMBER 31, 2019 AND 2018
(In thousands)

	Business-Type Activities	
	2019	**2018**
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
CURRENT ASSETS:		
Cash (Note 3)	$ 48,941	$ 65,833
MTA investment pool (Note 4)	175,397	359,677
Receivables:		
Billed and unbilled charges due from New York City	62,218	20,738
Accrued subsidies	97,232	104,881
Due from MTA and constituent Authorities (Note 9)	466,834	465,743
Other	98,078	121,452
Less allowance for doubtful accounts	(9,387)	(10,166)
Net receivables	714,975	702,648
Materials and supplies — at average cost — net	315,671	294,008
Prepaid expenses and other current assets	38,465	36,348
Total current assets	1,293,449	1,458,514
NONCURRENT ASSETS:		
Due from MTA for the purchase of capital assets (Note 9)	729,763	801,569
Capital assets (Note 5):		
Construction work-in-progress	4,025,832	4,313,656
Other capital assets, net of accumulated depreciation	41,139,850	38,717,964
Leased property under capital lease, net of accumulated amortization (Note 5)	64,250	66,662
Leasehold improvements on property, net of accumulated depreciation (Note 5)	93,359	96,584
Restricted deposits and other escrow funds	584	545
Total noncurrent assets	46,053,638	43,996,980
Total assets	47,347,087	45,455,494
DEFERRED OUTFLOWS OF RESOURCES:		
Related to pensions (Note 6)	1,339,335	725,795
Related to OPEB (Note 7)	983,747	1,011,825
Total deferred outflows of resources	2,323,082	1,737,620
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	$ 49,670,169	$ 47,193,114

See notes to consolidated financial statements.

(Continued)

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NEW YORK CITY TRANSIT AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

CONSOLIDATED STATEMENTS OF NET POSITION
DECEMBER 31, 2019 AND 2018
(In thousands)

	Business-Type Activities	
	2019	**2018**
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION		
CURRENT LIABILITIES:		
Accounts payable	$ 155,596	$ 170,656
Accrued expenses:		
Salaries, wages, and payroll taxes	196,697	172,957
Vacation, sick pay, and other benefits	761,269	750,113
Retirement and death benefits	13,748	12,679
Estimated liability arising from injuries to persons (Note 14)	320,694	297,223
Pollution remediation projects (Note 15)	16,572	15,514
Other	155,589	142,621
Total accrued expenses	1,464,569	1,391,107
Unredeemed farecards	299,780	301,321
Revenue advances	44,336	27,801
Loans Payable (Note 8)	9,708	9,192
Total current liabilities	1,973,989	1,900,077
NONCURRENT LIABILITIES:		
Obligation under capital lease, long-term (Note 5)	179,171	176,623
Net pension liability (Note 6)	5,276,945	4,730,720
Net OPEB liability (Note 7)	13,281,035	13,783,851
Estimated liability arising from injuries to persons (Note 14)	2,992,635	2,788,187
Loans Payable (Note 8)	70,429	67,884
Pollution remediation projects (Note 15)	66,288	62,054
Restricted deposits and other escrow funds	584	545
Total noncurrent liabilities	21,867,087	21,609,864
Total liabilities	23,841,076	23,509,941
DEFERRED INFLOWS OF RESOURCES:		
Related to pensions (Note 6)	787,249	744,271
Related to OPEB (Note 7)	1,067,352	14,323
Total deferred inflows of resources	1,854,601	758,594
NET POSITION:		
Net investment in capital assets	45,144,120	43,018,243
Unrestricted	(21,169,628)	(20,093,664)
Total net position	23,974,492	22,924,579
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	$ 49,670,169	$ 47,193,114

See notes to consolidated financial statements. (Concluded)

NEW YORK CITY TRANSIT AUTHORITY

(Component Unit of the Metropolitan Transportation Authority)

CONSOLIDATED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
YEARS ENDED DECEMBER 31, 2019 AND 2018
(In thousands)

	Business-Type Activities	
	2019	**2018**
OPERATING REVENUES:		
Rapid transit	$ 3,570,257	$ 3,426,813
Surface transit	935,856	928,768
Expired fare media	64,321	70,414
Paratransit fares	23,324	20,547
School, elderly, and paratransit reimbursement	297,487	280,810
Advertising and other (Note 10)	169,730	165,336
Total operating revenues	5,060,975	4,892,688
OPERATING EXPENSES:		
Salaries and wages	4,082,216	4,106,773
Health and welfare	922,527	835,982
Pensions	1,041,840	598,539
Other fringe benefits	458,038	489,257
Reimbursed overhead expenses	(294,137)	(347,451)
Postemployment benefits other than pensions	1,098,884	1,170,142
Electric power	278,381	301,001
Fuel	106,662	112,183
Insurance	69,825	67,313
Public liability claims	254,856	225,666
Paratransit service contracts	476,888	455,471
Maintenance and other operating expenses (Note 12)	283,971	233,963
Professional service contracts	191,372	197,373
Environmental remediation	27,548	84,138
Materials and supplies	341,877	353,250
Depreciation	1,994,253	1,832,839
Other expenses (Note 11)	98,102	88,093
Total operating expenses	11,433,103	10,804,532
OPERATING LOSS	(6,372,128)	(5,911,844)

See notes to consolidated financial statements.

(Continued)

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NEW YORK CITY TRANSIT AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

CONSOLIDATED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
YEARS ENDED DECEMBER 31, 2019 AND 2018
(In thousands)

	Business-Type Activities	
	2019	**2018**
NONOPERATING REVENUES:		
Tax-supported subsidies:		
New York State (Note 2)	$ 2,629,111	$ 2,551,146
New York City	641,350	700,607
Operating Assistance subsidies:		
New York State	158,672	158,672
New York City	158,672	158,672
Triborough Bridge and Tunnel Authority	334,064	290,135
Less amounts provided to Staten Island Rapid Transit Operating Authority	(5,899)	(5,392)
Other subsidies:		
NYS/NYC Subway Action Plan (Note 2)	-	507,812
Assistance fund (Note 2)	337,697	-
Total subsidies revenues	4,253,667	4,361,652
Interest expense	(17,889)	(16,547)
Interest income and other nonoperating revenues	12,345	10,268
Loss on disposal of subway cars	-	(125,288)
Total nonoperating income	4,248,123	4,230,085
LOSS BEFORE CAPITAL CONTRIBUTIONS	(2,124,005)	(1,681,759)
CAPITAL CONTRIBUTIONS (Note 2)	3,173,918	2,652,328
CHANGE IN NET POSITION	1,049,913	970,569
NET POSITION:		
Beginning of year	22,924,579	21,147,801
Restatement of beginning net position - adoption of GASB No. 75	-	806,209
End of year	$ 23,974,492	$ 22,924,579

See notes to consolidated financial statements.

(Concluded)

NEW YORK CITY TRANSIT AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

CONSOLIDATED STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2019 AND 2018
(In thousands)

	Business-Type Activities	
	2019	**2018**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Cash received from passengers, tenants, advertisers, and others	$ 5,111,122	$ 4,869,771
Cash payments for payroll and related employee costs	(6,570,368)	(6,271,609)
Cash payments to suppliers for goods and services	(2,067,466)	(1,957,653)
Net cash used in operating activities	(3,526,712)	(3,359,491)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Subsidies received	4,274,227	4,247,909
Payment to MTA Bus	-	(22,948)
Net cash provided by noncapital financing activities	4,274,227	4,224,961
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Principal payments	(9,580)	(8,582)
Interest paid	(3,694)	(2,032)
Payments on MTA Transportation bonds issued to fund capital assets	(1,271,834)	(1,234,053)
Subsidies designated for debt service payments	315,311	314,791
Capital project costs incurred for capital program	(1,194,933)	(1,296,525)
Cash transferred to capital program fund	(329)	(1,288)
Reimbursement of capital project costs from MTA	1,207,055	1,416,396
Net cash used in capital and related financing activities	(958,004)	(811,293)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Change in MTA investment pool	184,280	(51,617)
Interest on investments	9,317	7,382
Net cash provided by (used in) investing activities	193,597	(44,235)
NET (DECREASE) INCREASE IN CASH	(16,892)	9,942
CASH — Beginning of year	65,833	55,891
CASH — End of year	$ 48,941	$ 65,833

See notes to consolidated financial statements. (Continued)

NEW YORK CITY TRANSIT AUTHORITY

(Component Unit of the Metropolitan Transportation Authority)

CONSOLIDATED STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2019 AND 2018
(In thousands)

	Business-Type Activities	
	2019	**2018**
RECONCILIATION OF CASH FLOWS FROM OPERATING ACTIVITIES:		
Operating loss	$ (6,372,128)	$ (5,911,844)
Adjustments to reconcile operating loss to net cash used in operating activities — depreciation	1,994,253	1,832,839
On-behalf payments related to rent (Note 5)	5,013	4,520
CHANGES IN OPERATING ASSETS AND LIABILITIES:		
Decrease (increase) in operating receivables	51,688	(30,501)
Increase (decrease) in prepaid expenses and other current assets	(2,117)	10,049
Increase in materials and supplies	(21,663)	(2,235)
(Increase) decrease in deferred outflows of resources related to pensions	(613,540)	292,077
Decrease (increase) in deferred outflows of resources related to OPEB	28,078	(1,011,825)
(Decrease) increase in farecard liability	(1,541)	7,584
Increase in accrued salaries, wages and payroll taxes	23,740	19,369
Decrease in accounts payable and other accrued liabilities	(3,346)	(26,533)
Increase in accrued vacation, sick pay and other benefits	11,156	8,806
Increase in accrued retirement and death benefits	1,069	867
Increase (decrease) in net pension liability	546,225	(982,493)
(Decrease) increase in net OPEB liability	(502,816)	1,692,631
Increase in deferred inflows of resources related to pensions	42,978	352,712
Increase in deferred inflows of resources related to OPEB	1,053,029	14,323
Increase in estimated liability arising from injuries to persons	227,918	286,026
Increase in liability for environmental pollution remediation	5,292	84,137
NET CASH USED IN OPERATING ACTIVITIES	$ (3,526,712)	$ (3,359,491)
SUPPLEMENTAL SCHEDULE OF NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES — Contributed capital assets	$ 2,608,320	$ 2,232,490

See notes to consolidated financial statements.

(Concluded)

NEW YORK CITY TRANSIT AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF FIDUCIARY NET POSITION
PENSION FUND
DECEMBER 31, 2019 AND 2018
(In thousands)

	Fiduciary Activities* 2019	Fiduciary Activities* 2018
ASSETS		
Cash	$ 6,494	$ 5,977
Receivables:		
Employee loans	40,092	36,804
Investment securities sold	1,036	672
Interest and dividends	1,419	1,331
Total receivables	42,547	38,807
Investments at fair value:		
Investments measured at readily determined fair value	531,619	433,543
Investments measured at net asset value	2,730,245	2,379,443
Total investments	3,261,864	2,812,986
Total assets	3,310,905	2,857,770
LIABILITIES		
Accounts payable and accrued liabilities	1,629	1,380
Payable for investment securities purchased	3,425	2,148
Accrued benefits payable	19	937
Accrued postretirement death benefits (PRDB) payable	3,360	2,921
Accrued 55/25 Additional Members Contribution (AMC) payable	5,787	5,982
Total liabilities	14,220	13,368
NET POSITION		
Restricted for pensions	3,296,685	2,844,402
Total liabilities and net position	$ 3,310,905	$ 2,857,770

* Includes the Manhattan and Bronx Surface Transit Operating Authority Pension Plan (MaBSTOA Plan) only.

NEW YORK CITY TRANSIT AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
PENSION FUND
YEARS ENDED DECEMBER 31, 2019 AND 2018
(In thousands)

	Fiduciary Activities*	
	2019	**2018**
ADDITIONS		
Contributions:		
Employer contributions	$ 206,389	$ 205,433
Member contributions	23,552	21,955
Total contributions	229,941	227,388
Investments income:		
Net appreciation (depreciation) in fair value of investments	429,415	(97,896)
Dividend income	31,364	37,259
Interest income	10,534	7,891
Less:		
Investment expenses	27,530	35,206
Investment income, net	443,783	(87,952)
Total additions	673,724	139,436
DEDUCTIONS		
Benefit payments and withdrawals	221,221	213,827
Administrative expenses	220	196
Total deductions	221,441	214,023
Net increase (decrease) in fiduciary net position	452,283	(74,587)
NET POSITION		
Restricted for pensions:		
Beginning of year	2,844,402	2,918,989
End of year	$ 3,296,685	$ 2,844,402

* Includes the Manhattan and Bronx Surface Transit Operating Authority Pension Plan (MaBSTOA Plan) only.

1. BASIS OF PRESENTATION

Reporting Entity — The accompanying consolidated financial statements include the accounts of the New York City Transit Authority (Transit Authority), and its component unit, the Manhattan and Bronx Surface Transit Operating Authority (MaBSTOA) (collectively, the Authority), which are public benefit corporations and component units of the Metropolitan Transportation Authority (MTA) created pursuant to the Public Authorities Law (the Act) of the State of New York (the State) to operate public subway and bus services within The City of New York (The City).

The operations of the Authority are classified as Business-Type activities in these financial statements. The Authority is operationally and legally independent of the MTA. The Authority enjoy certain rights typically associated with separate legal status including, in some cases, the ability to issue debt. However, the Authority is included in the MTA's consolidated financial statements as a blended component unit because of the MTA's financial accountability and the Authority is under the direction of the MTA Board (a reference to "MTA Board" means the board of MTA and/or the boards of the Authority and other MTA component units 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 the Authority in its consolidated financial statements.

MaBSTOA is a component unit of the Transit Authority and, therefore, the financial results of MaBSTOA are combined with those of the Transit Authority in the consolidated financial statements. The Manhattan and Bronx Surface Transit Operating Authority Pension Plan (MaBSTOA Plan) is categorized as a Pension Fund and is a fiduciary component unit of the Authority.

MaBSTOA is operationally and legally independent of the Authority. MaBSTOA enjoy certain rights typically associated with separate legal status. However, MaBSTOA is included in the Authority's consolidated financial statements as a blended component unit because of the Authority's financial accountability.

The Authority has material transactions with affiliated agencies included in the MTA financial reporting group. Such agencies include the MTA, Triborough Bridge and Tunnel Authority (TBTA), Metro North Commuter Railroad (MNCR), Long Island Rail Road (LIRR), MTA Bus Company (MTA Bus) and Staten Island Rapid Transit Operating Authority (SIRTOA).

The Authority is a part of the financial reporting group of the MTA and is included in the consolidated financial statements of the MTA in accordance with GASB Statement No. 14, as amended by GASB Statement No. 61. The MTA is a component unit of the State and is included in the State of New York Comprehensive Annual Financial Report of the State Comptroller as a public benefit corporation.

In July 2003, the MTA Capital Construction Company was created by action of the MTA Board of Directors as a public benefit corporation subsidiary of the MTA under section 1266(s) of the Public Authorities Law. The mission of this new subsidiary company is to plan, design and construct current and future major MTA system expansion projects. Projects currently underway, include all activities associated with the Long Island Rail Road East Side access, the Number 7 Line Extension, the Lower Manhattan Fulton Transit Center, the new South Ferry station complex, system-wide capital Security Projects, and the Second Avenue Subway, which are consolidated under the management of the MTA Capital Construction Company.

In December of 2004, MTA Bus was created as a public benefit corporation subsidiary of the MTA specifically to operate certain City bus routes. These routes are currently operated by MTA Bus and not by the Authority. All material transactions between MTA Bus and the Authority have been properly recorded as of December 31, 2019.

Staten Island Rapid Transit Operating Authority — The Staten Island Rapid Transit Operating Authority (SIRTOA) is a component unit of the MTA and provides transportation service on Staten Island. SIRTOA is managed by the Authority on behalf of The City. The Authority has no responsibility for the operating deficit of SIRTOA. The Authority collects, on SIRTOA's behalf, its share of certain operating assistance subsidies determined by formula, and transfers such subsidies to SIRTOA. The amount of subsidy funds to which SIRTOA is entitled is recorded as a reduction of the subsidy revenues of the Authority.

Operations — Operations are conducted pursuant to leases with The City which expired on November 1, 1989, except that the terms of the leases continue so long as any financing agreement between the Authority and the MTA and any MTA Transportation Revenue Bonds remain outstanding. The City has the option to terminate the leases at any time. In the event of termination, The City is required to assume the assets and liabilities of the Authority and must pay or make provision for the payment of any debt incurred pursuant to financing agreements of the Authority.

Substantial operating losses (the difference between operating revenues and expenses) result from the essential services that the Authority provides; such operating losses will continue in the foreseeable future. To meet the funding requirements of these operating losses, the Authority receives subsidies from:

a. The State, in the form of annual subsidies of special State and regional tax revenues, operating assistance, and reimbursement of certain expenses;

b. The City, in the form of operating assistance, tax revenues, and reimbursement of certain expenses; and

c. An affiliated agency (TBTA), in the form of a portion of its operating surplus.

The New York State Public Authorities Law and the financing agreement between the Authority and the MTA provide that the Authority shall establish fares, tolls, and other fees for the use of its facilities as may be necessary to maintain its combined operations on a self-sustaining basis as defined in such law. It is the opinion of management that the Authority is in compliance with these requirements. The Authority is not liable for real estate taxes, franchise taxes, or sales taxes on substantially all of its purchases or other excise taxes on its properties.

Capital Financing — The MTA has ongoing programs on behalf of the Authority and other affiliated agencies, 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 operation.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

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

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

Basis of Accounting – 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. Separate financial statements are presented for the fiduciary fund.

The MaBSTOA Plan is categorized as a Pension Fund and is a fiduciary component unit of the Authority.

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

New Accounting Standards Adopted

The Authority adopted the following GASB Statements for the year ended December 31, 2019:

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

GASB Statement No. 84, *Fiduciary Activities*, improves guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The requirements of GASB Statement No. 84 are effective for reporting periods beginning after December 15, 2018. The adoption of this Statement resulted in the addition of fiduciary funds financial statements for the years-end December 31, 2019 and 2018.

GASB Statement No. 88, "*Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*", requires that additional information be disclosed in the notes to financial statements related to direct borrowings and direct placements. It also clarifies which liabilities should be included when disclosing information related to debt. The Statement requires that additional information related to debt be disclosed in the notes to the financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences; significant termination events with finance-related consequences; and significant subjective acceleration clauses. GASB Statement No. 88 is effective for reporting periods beginning after June 15, 2018. The adoption of this Statement had no material impact on the Authority's note disclosures.

GASB Statement No. 90, "*Majority Equity Interest- an Amendment of GASB Statements No. 14 and No. 61*", improves consistency in the measurement and comparability of the financial statement presentation of majority equity interests in legally separate organizations and improves the relevance of financial statement information for certain component units. The Statement defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. The Statement also establishes that ownership of a majority equity interest in a legally separate organization results in the government being financially accountable for the legally separate organization and, therefore, the government should report that organization as a component unit. In addition, the Statement also requires that a component unit in which a government has a 100 percent equity interest account for its assets, deferred outflows of resources, liabilities and deferred inflows of resources at acquisition value. GASB Statement No. 90 is effective for reporting periods beginning after December 15, 2018. The adoption of this Statement had no material impact on the Authority's financial statements.

GASB Statement No. 95, "*Postponement of the Effective Dates of Certain Authoritative Guidance*", provides temporary relief to government and other stakeholders in light of the COVID-19 pandemic. This objective is accomplished by postponing the effective dates of certain accounting and financial reporting provisions in Statements and Implementation Guides that first became effective or are scheduled to become effective for periods beginning after June 15, 2018 and later. GASB Statement No. 95 is effective immediately. The adoption of this Statement did not have a material impact to the Authority's financial statements. However, the Authority did update the required year of adoption for GASB Statements No. 87, 89, 91, 92 and 93. Refer to Accounting Standards Issued but Not Yet Adopted for further details.

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 Authority upon implementation. Management has not yet evaluated the effect of implementation of these standards.

GASB Statement No.	GASB Accounting Standard	Authority Required Year of Adoption
87	*Leases*	2022
89	*Accounting for Interest Cost Incurred Before the End of a Construction Period*	2021
91	*Conduit Debt Obligations*	2022
92	*Omnibus 2020*	2022
93	*Replacement of Interbank Offered Rates*	2022
94	*Public-Private and Public-Public Partnerships and Availability Payment Arrangements*	2023

Net Position — The Authority follows the "business type" activity requirements of GASB 34, *Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments* which requires that resources be classified for accounting and reporting purposes into the following three net position categories:

- Net investment in capital assets: Capital assets, net of accumulated depreciation and outstanding principal balances of debt attributable to the acquisition, construction or improvement of those assets.

- Unrestricted: Net position that are not subject to externally imposed stipulations. Unrestricted net position may be designated for specific purposes by actions of management or the Board of Directors or may otherwise be limited by contractual agreements with outside parties.

Subsidies — The Authority receives subsidies from various sources, including the State and The City, which are included in nonoperating revenues. In general, these subsidies are subject to annual appropriations by the governmental units and periodic approval of the continuation of the taxes supporting the subsidies.

The principal funding sources for the Authority are as follows:

Operating Assistance Appropriations and Grants — The Authority receives, subject to annual appropriations, State and City operating assistance funds. The funds received under the State transit operating assistance program are fully matched by contributions from The City. State and City operating assistance subsidies are recognized as non-operating revenue in the amount of the respective annual appropriation when such appropriation becomes effective.

Triborough Bridge and Tunnel Authority — The New York State Public Authorities law requires the TBTA to transfer its annual operating surplus, as defined, to the Authority and the MTA. The initial $24 million of the operating surplus is provided to the Authority and the balance is divided equally between the Authority and the MTA. However, the amounts transferred to the Authority and the MTA are net of a provision for debt service on TBTA bonds issued to finance the acquisition of facilities under their respective portions of the Capital Program. For the years ended December 31, 2019 and 2018, $245.4 million and $265.6 million, respectively, were paid from the operating surplus of the TBTA to satisfy the Authority's portion of debt service requirements.

Mortgage Recording Taxes — Under New York State law, the MTA receives operating and capital assistance from the State Mortgage Recording Tax, which is collected by The City and the seven counties within the MTA transportation region, at the rate of three-tenths of 1% of the debt secured by certain real estate mortgages. Such legislation governs the use of the funds from this revenue source whereby the proceeds of this tax are first used by the MTA to meet the operating costs of the MTA headquarters, with the remaining funds allocated 55% to the Authority and 45% to the commuter railroads for their capital and operating needs. The Authority recognizes such sources of funds when designated by the MTA for the Authority's use. The portion of this subsidy attributable to the Authority is reported in "Tax-supported subsidies: New York State" in the accompanying consolidated statements of Revenues, Expenses, and Changes in Net Position. The Authority records the portion of its State Mortgage Recording Tax subsidy which funds principal and interest payments on long-term debt, net of investment earnings on unexpended proceeds, used to construct capital assets as capital contributions.

In addition, the State designated for the MTA's use an additional mortgage recording tax (the Additional Mortgage Recording Tax) of one-quarter of 1% of mortgages secured by real estate improved or to be improved by structures containing one to six dwelling units in the MTA transportation region. The funds from this additional tax are available, after satisfying debt service requirements, to meet the capital and operating needs of the Authority and the commuter railroads to be disbursed at MTA's discretion.

No funds from the Additional Mortgage Recording Tax were disbursed to the Authority in 2019 and 2018.

The Authority receives operating assistance directly from The City through The City Mortgage Recording Tax at the rate of five-eighths of 1% of the debt secured by certain real estate mortgages and through the Real Property Transfer Tax at the rate of 1% of certain properties' assessed value (collectively referred to as Urban Tax Subsidies). These Urban Tax Subsidies are reflected in Tax supported subsidies: New York City, in the accompanying consolidated statements of Revenues, Expenses, and Changes in Net Position. These funds are recognized as revenue, based upon the reported amount of taxes collected by The City from underlying transactions, within the Authority's fiscal year.

New York State Regional Mass Transit Taxes — The Authority receives, subject to annual appropriations, revenues from taxes enacted by the State legislature from various taxing sources.

In 1980, the State enacted a series of taxes, portions of which are deposited in the Metro Mass Transportation Operating Account (MMTOA), to fund the operating deficits of State mass transportation systems. MMTOA taxes currently include a business privilege tax imposed on petroleum business in the State, a one-quarter of 1% sales and use tax on certain personal property and services, a corporate franchise tax imposed on transportation and transmission companies, and a temporary franchise tax surcharge on certain corporations, banks, insurance, utility, and transportation companies attributable to business activity carried on in the State. MMTOA taxes are subject to annual appropriation, availability of sufficient tax collections, and determination of operating need by the State for the MTA. They are recognized as revenue in the amount of the annual appropriation when such appropriation becomes effective.

Under New York State law, subject to annual appropriation, the MTA receives operating and capital assistance through a portion of petroleum business tax receipts, certain motor fuel taxes, and certain motor vehicle fees, which are collected by the State. Such assistance is required by law to be allocated, after provision for debt service on any bonds secured by such taxes, 85% to the Authority and 15% to the commuter railroads for their operating and capital needs. MTA Dedicated Tax Fund Bonds (DFT Bonds) are secured by certain petroleum business tax receipts. The Authority recognizes such sources of funds when designated by the MTA for the Authority's use. A portion of the petroleum business tax receipts collected by the MTA is used to satisfy the debt service requirements for the DTF Bonds and is recorded as capital contributions.

Metropolitan Commuter Transportation Mobility Tax — In June 2009, Chapter 25 of the Laws of 2009 added Article 23, which established the Metropolitan Commuter Transportation Mobility Tax (MCTMT). This tax is administered by the NYS Tax Department, and the proceeds from this tax are distributed to the MTA. This tax is imposed on certain employers and self-employed individuals engaging in business within the Metropolitan Commuter Transportation District (MCTD), which includes all counties in New York City, and the counties of Rockland, Nassau, Suffolk, Orange, Putnam, Duchess, and Westchester. This tax requires certain employers that have payroll expenses within the MCTD to pay at a rate of 0.34% of an employer's payroll expenses for all covered employees for each calendar quarter. The effective date of this tax was March 1, 2009 for employers other than public schools districts; September 1, 2009 for public schools districts, and January 1, 2009 for individuals.

Also in 2009, several amendments to the existing tax law provided the MTA supplemental revenues to be deposited into the MTA's Aid Trust Account. These amendments imposed a supplemental fee of one dollar for each six month period of validity of a learner's permit or a driver's license issued to a person residing in the MCTD, a supplemental fee of twenty-five dollars per year on the registration and renewals of registrants of motor vehicles who reside within the MCTD, imposed on taxicab owners a tax of fifty cents per ride on taxicab rides originating in New York City and terminating within the MCTD, and a supplemental tax of five percent of the cost of rentals of automobiles rented within the MCTD. The supplemental Aid Tax receipts are included in the Mobility Tax amounts for reporting purposes.

The composition of New York State tax-supported subsidies for 2019 and 2018 is as follows (in thousands):

	Accrued Revenue	
	2019	**2018**
Petroleum business tax*	$ 229,458	$ 229,720
Metro mass tax	1,235,049	1,140,040
Payroll Mobility tax	1,164,604	1,181,386
	$2,629,111	$2,551,146

* Net of $315,311 and $314,791 for debt service payments in 2019 and 2018, respectively.

Paratransit — Pursuant to an agreement between The City and the MTA, the Authority, 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 the Authority. The City reimburses the Authority 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 The City for the preceding calendar year. Fare revenues and The City reimbursement aggregated approximately $236.8 million in 2019 and $217.3 million in 2018. Total paratransit expenses, including paratransit service contracts, were $596.0 million and $536.5 million in 2019 and 2018, respectively.

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 Authority (e.g. salaries, insurance, depreciation, etc.) are reported as operating expenses. All other expenses (e.g. interest on long-term debt, fuel hedge transactions, etc.) are reported as non-operating expenses.

Reimbursement of Expenditures — Engineering and labor costs incurred by the Authority for capital projects are reimbursed under the capital program by the MTA to the extent that they relate to approved expenditures applicable to capital projects primarily initiated after April 1, 1982. They are reimbursed by The City to the extent they relate to amounts approved for prior projects. In 2019 and 2018, reimbursements were netted against gross operating expenses on the consolidated statements of Revenues, Expenses, and Changes in Net Position.

Fare and Service Reimbursement from the State and City — In 1995, The City ceased reimbursing the Authority for the full costs of the free/reduced fare program for students. Beginning in 1996, the State and The City each began paying $45 million per annum to the Authority toward the cost of the program. In 2009, the State reduced its $45 million reimbursement to $6.3 million. Beginning in 2010, the State increased its annual commitment to $25.3 million while The City's annual commitment remained at $45 million. These commitments have been met by both the State and The City for both 2018 and 2019. For the year ended December 31, 2019, the Authority received $115.3 million from the

State and City combined, which includes $15.0 million due from The City for the year 2018 and $30.0 million prepaid for the year 2020.

Prior to April 1995, The City was obligated to reimburse the Authority 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, The City no longer reimburses the Authority 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 The City's expense. The Authority continues to be responsible for certain capital costs and support services related to such police activities, a portion of which is reimbursed by The City. The Authority received approximately $4.1 million and $3.6 million in 2019 and 2018, respectively for the reimbursement of transit police costs.

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

Assistance Fund — *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.

MTA Investment Pool — The MTA, on behalf of the Authority, invests funds which are not immediately required for Authority's operations in securities permitted by the State Public Authorities Law, including repurchase agreements collateralized by U.S. Treasury securities, U.S. Treasury notes and U.S. Treasury zero-coupon bonds. All investments are held by the MTA's agent in custody accounts in the name of the MTA. The Authority categorizes its fair value measurement within the fair value hierarchy established by U.S. GAAP. The hierarchy is based on the valuation inputs used to measure fair value of the assets. Level 1 inputs are quoted prices in an active market for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs. The Authority's investment in the MTA Investment Pool is valued based on other observable inputs (Level 2 inputs).

Due to/from MTA and Constituent Authorities — Due to/from MTA and constituent Authorities consists of reimbursements due from the MTA Capital Program for billed and unbilled charges relating to capital projects, farecards and intercompany operating receivables, payables, and inter-agency loan transactions.

Prepaid Expenses and Other Current Assets — The Authority prepaid $12.9 million to the New York Health Insurance Plan (NYSHIP) and $25.5 million in risk management related insurance coverage during 2019. The Authority prepaid $13.3 million to the New York Health Insurance Plan (NYSHIP) and $23.0 million in risk management related insurance coverage during 2018.

Due from MTA for Purchase of Capital Assets — Due from MTA for purchase of capital assets consists of funds held by the MTA which are restricted for capital asset acquisitions by the Authority pursuant to the 2002 Transportation Revenue Bond Resolution. This capital program pool is comprised of non-bond proceed funds derived from safe harbor and sale/leaseback transactions, operating fund transfers, legal settlements, TBTA bond purchase rights and swap option agreements, and interest earnings on these pooled funds.

Capital Assets — Capital assets acquired prior to April 1982 were funded primarily by The City, with capital grants made available to the Authority. The City has title to a substantial portion of such assets and, accordingly, these assets are not recorded on the books of the Authority. Subsequent acquisitions, which are part of the capital program, are recorded at cost by the Authority. Funding sources for the acquisition of these capital assets include Federal, State, and City capital grants, grants from the Port Authority of New York and New Jersey, the proceeds from the issuance of Transportation Revenue Bonds, and various TBTA bonding and other sources. Capital assets are recorded at cost and are depreciated on a straight-line basis over 25 or 35 years for subway cars, 12 years for buses, and lives generally ranging from 10 years to 60 years for the other capital assets. Cost includes capitalized interest apportioned to assets during construction. For the purposes of this calculation, interest expense is reported net of investment income.

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Contributed Capital — Capital assets contributed by the MTA and restricted funds due from the MTA for the purchase of capital assets are recorded as capital contributions on the consolidated statements of Revenues, Expenses, and Changes in Net Position. Contributed capital is recognized upon identification of capital costs to be funded by the MTA. Capital contributions for the years ended December 31, 2019 and 2018, consist of the following (in thousands):

	2019	**2018**
Capital assets contributed by MTA from:		
Federal grants	$ 1,060,286	$ 1,019,030
Other than federal grants	2,753,008	2,522,316
Petroleum business taxes received for principal and interest payments on debt	315,311	314,791
Principal and interest payments on MTA Transportation bonds issued to fund capital assets	(930,202)	(895,247)
Decrease in funds due from MTA for purchase of capital assets	(24,485)	(308,562)
Total capital contributions	$ 3,173,918	$ 2,652,328

Passenger Revenue — Revenues from the sale of farecards are recognized as income as the farecards are used and are reported as operating income. Expired fare media revenue is recognized on the date of the expiration on the farecard.

Materials and Supplies — Materials and supplies are recorded at weighted average cost, net of a reserve for obsolescence at December 31, 2019 and 2018 of $81.6 million and $76.3 million, respectively.

Employee Benefits — Effective for the year-ended December 31, 2015, the Authority adopted the standards of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions* and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date*, for its pension plans.

The Authority 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 Authority's proportionate share thereof in the case of a cost-sharing multiple-employer plan, measured as of the pension plans' measurement dates. 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 period in which the difference occurred.

In 2003, and as a result of collective bargaining, the Authority assumed responsibility for providing health benefits to its employees who are members of the Transport Workers Union (TWU) Local 100, as well as to retirees who were members of the TWU Local 100 and reach normal retirement age while working for the Authority. During 2005, the Authority also began providing health benefits for active and retired members of the Amalgamated Transit Union (ATU) Local 1056 and Local 726. Previously, these benefits were being provided by the TWU and ATU Health Benefits Trusts (the Trusts) with the Authority required to make monthly contributions to the Trusts on behalf of the participants on a 'pay as you go' basis. The majority of the benefits provided under the plan are self-insured with administrative services provided by various health insurance companies.

The Authority has recorded a liability for claims incurred but not reported (IBNR). The liability represents those estimated future payments that are attributable, under the plan's provisions, to services rendered to participants prior to year-end. The estimated liability of claims includes benefits expected to be paid to retired or terminated employees or their beneficiaries and present employees or their beneficiaries, as applicable. The estimated liability for claims incurred but not reported or paid is $136.0 million and $113.8 million as of December 31, 2019 and 2018, respectively.

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

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

The Authority recognizes a proportionate share of the net OPEB liability for the MTA's cost-sharing multiple-employer OPEB Plan, 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.

Receivables — Receivables are recorded as amounts due to the Authority, reduced by an allowance for doubtful accounts, to report the receivables at their net realizable value.

Pollution Remediation Projects — Pollution remediation costs are being expensed in accordance with the provisions of GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations* (see Note 15). 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 Authority is in violation of a pollution prevention-related permit or license; an imminent threat to public health due to pollution exists; the Authority is named by a regulator as a responsible or potentially responsible party to participate in remediation; the Authority voluntarily commences or legally obligates itself to commence remediation efforts; or the Authority is named or there is evidence to indicate that it will be named in a lawsuit that compels participation in remediation activities.

Use of Management's Estimates — The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements. In addition, they affect the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates and assumptions.

3. CASH

The bank balances are insured up to $250 in the aggregate by the Federal Deposit Insurance Corporation (FDIC) for each bank in which funds are deposited. Cash, including funds on hand and in transit, consists of the following at December 31, 2019 and 2018 (in thousands):

	2019		2018	
	Book Balance	**Bank Balance**	**Book Balance**	**Bank Balance**
Insured and collateralized deposits	$ 11,406	$ 11,183	$ 20,160	$ 5,772
Less escrow and other restricted deposits	(828)	(828)	(770)	(770)
Commercially insured funds on-hand and in-transit	38,363	-	46,443	-
	$ 48,941	$ 10,355	$ 65,833	$ 5,002

Deposits in the Authority's bank accounts are collateralized by U.S. Treasury securities, U.S. Treasury notes, and U.S. Treasury zero coupon bonds, pursuant to the New York State Public Authorities Law. The on-hand and in-transit funds consist primarily of passenger revenue funds collected, but not yet deposited.

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the Authority will not be able to recover the value of its deposits. While the Authority does not have a formal deposit policy for custodial credit risk, New York State statues govern the Authority's investment policies.

4. MTA INVESTMENT POOL

The MTA, on behalf of the Authority, invests funds which are not immediately required for the Authority's operations, in securities permitted by the State Public Authorities Law, including repurchase agreements collateralized by U.S. Treasury securities, U.S. Treasury notes, and U.S. Treasury zero coupon bonds. All investments are held by the MTA's agent, in custody accounts, in the name of the MTA. The Authority records its position in the Pool based upon a net asset value derived on assets invested in the Pool plus all realized income and losses earned. The Authority's earnings from short-term investments approximated $9.0 million and $7.8 million for the years ended December 31, 2019 and 2018, respectively. As of December 31, 2019 and 2018, the Authority had an investment pool balance of $175.4 million and $359.7 million, respectively.

5. CAPITAL ASSETS

Capital assets, at December 31, 2019 and 2018, consist of the following (in thousands):

	December 2018	Additions / Reclassifications	Deletions / Reclassifications	December 2019
Capital assets not being depreciated:				
Construction work-in-progress	$ 4,313,656	$ 4,001,521	$ (4,289,345)	$ 4,025,832
Total capital assets not being depreciated	4,313,656	4,001,521	(4,289,345)	4,025,832
Capital assets being depreciated:				
Subway cars	9,070,579	417,598	-	9,488,177
Buses	3,176,102	439,129	(604,196)	3,011,035
Track and structures	13,762,787	711,050	-	14,473,837
Depots and yards	4,716,455	192,900	-	4,909,355
Stations	19,954,229	1,574,491	-	21,528,720
Signals	7,755,683	764,257	-	8,519,940
Service vehicles	389,680	56,767	-	446,447
Building	166,733	-	-	166,733
Other	2,736,785	254,310	(3,254)	2,987,841
Total capital asset being depreciated	61,729,033	4,410,502	(607,450)	65,532,085
Less accumulated depreciation:				
Subway cars	(4,296,165)	(248,096)	-	(4,544,261)
Buses	(1,817,835)	(224,676)	604,196	(1,438,315)
Track and structures	(5,049,292)	(367,504)	-	(5,416,796)
Depots and yards	(2,195,759)	(140,596)	-	(2,336,355)
Stations	(5,631,413)	(595,924)	-	(6,227,337)
Signals	(2,130,700)	(255,278)	-	(2,385,978)
Service vehicles	(181,163)	(17,226)	-	(198,389)
Building	(89,490)	(3,308)	-	(92,798)
Other	(1,619,252)	(136,008)	3,254	(1,752,006)
Total accumulated depreciation	(23,011,069)	(1,988,616)	607,450	(24,392,235)
Total capital assets being depreciated—net	38,717,964	2,421,886	-	41,139,850
Capital assets—net	$ 43,031,620	$ 6,423,407	$ (4,289,345)	$ 45,165,682

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	December 2017	Additions / Reclassifications	Deletions / Reclassifications	December 2018
Capital assets not being depreciated:				
Construction work-in-progress	$ 4,313,546	$ 3,712,416	$ (3,712,306)	$ 4,313,656
Total capital assets not being depreciated	4,313,546	3,712,416	(3,712,306)	4,313,656
Capital assets being depreciated:				
Subway cars	9,518,101	302,423	(749,945)	9,070,579
Buses	2,980,392	321,637	(125,927)	3,176,102
Track and structures	13,066,307	696,480	-	13,762,787
Depots and yards	4,626,940	89,515	-	4,716,455
Stations	18,783,695	1,170,534	-	19,954,229
Signals	6,682,880	1,072,803	-	7,755,683
Service vehicles	381,593	8,087	-	389,680
Building	166,733	-	-	166,733
Other	2,564,310	175,000	(2,525)	2,736,785
Total capital asset being depreciated	58,770,951	3,836,479	(878,397)	61,729,033
Less accumulated depreciation:				
Subway cars	(4,679,712)	(241,110)	624,657	(4,296,165)
Buses	(1,749,206)	(194,556)	125,927	(1,817,835)
Track and structures	(4,703,038)	(346,254)	-	(5,049,292)
Depots and yards	(2,059,491)	(136,268)	-	(2,195,759)
Stations	(5,081,366)	(550,047)	-	(5,631,413)
Signals	(1,904,469)	(226,231)	-	(2,130,700)
Service vehicles	(164,735)	(16,428)	-	(181,163)
Building	(86,185)	(3,305)	-	(89,490)
Other	(1,508,773)	(113,004)	2,525	(1,619,252)
Total accumulated depreciation	(21,936,975)	(1,827,203)	753,109	(23,011,069)
Total capital assets being depreciated—n	36,833,976	2,009,276	(125,288)	38,717,964
Capital assets—net	$ 41,147,522	$ 5,721,692	$ (3,837,594)	$ 43,031,620

Capitalized interest totaled $11.6 million and $8.5 million in 2019 and 2018, respectively.

In 1990, the Authority issued approximately $202.8 million of Transit Facility Revenue Bonds, Series 1990 to fund the acquisition of an office building located at 130 Livingston Street in Brooklyn, New York. The bonds were subsequently defeased in May 2002 by the MTA Transportation Revenue bonds. The property is located on land owned by the New York City Economic Development Corporation (NYC EDC), as trustee for The City, with whom the Authority has entered into a 99-year ground lease. In 2011, the ground lease between the MTA and NYC EDC for Livingston Street was renegotiated with monthly lease payments increasing from approximately $47 to $111 per month. Rent expense, on a cash basis, under the lease was approximately $1.3 million in 2019 and 2018.

Lease Transaction — 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: the Authority, 68.7%, MTA, 21%; and TBTA, 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 December 31, 2019, for the Authority, TBTA and MTA (including MTA Bus, MTA Capital Construction Company and MTA Business Service Center) were 52.8%, 7.5% and 39.7%, respectively. The Authority's sublease is for a year-to-year term, automatically extended, except upon the giving of a nonextension notice by the Authority.

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 Authority reflected capital lease obligation as of December 31, 2019 and 2018 of $179.2 million and $176.6 million, respectively. Operating rent expenses under the Authority's lease amounted to $7.5 million in 2019 and 2018.

MTA pays the lease payments on behalf of the Authority and subsequently makes monthly chargebacks in the form of rental payments. During 2019, the total of the rental payments charged to the Authority was $5.0 million less than the lease payment made by MTA on behalf of the Authority.

At December 31, 2019, future minimum lease payments under the Authority's lease are as follows (in thousands):

Years Ending December 31	**Operating**	**Capital**
2020	$ 7,452	$ 13,543
2021	7,452	13,543
2022	7,452	13,543
2023	7,452	13,543
2024	7,452	15,517
2025–2029	37,260	81,693
2030–2034	37,260	101,785
2035–2039	37,260	118,927
2040–2044	37,260	131,564
2045–2049	26,082	99,616
Total minimum lease payments	212,382	603,274
Less interest		(424,103)
Present value of net minimum lease payments		$ 179,171

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 December 31, 2019 and 2018, is as follows (in thousands):

	2019	**2018**
Capital lease — building	$114,489	$114,489
Less accumulated amortization	(50,239)	(47,827)
Capital lease — building — net	$ 64,250	$ 66,662

The amount of such improvements apportioned to the Authority as of December 31, 2019 and 2018 are as follows (in thousands):

	2019	**2018**
Base building improvements	$ 134,394	$ 134,394
Tenant improvements	130,792	130,792
Furniture and fixtures	11,434	11,434
Computers and equipment	10,781	10,781
Development fees	6,893	6,893
Capitalized interest	13,702	13,702
	307,996	307,996
Less accumulated depreciation	(214,637)	(211,412)
Total leasehold improvements	$ 93,359	$ 96,584

6. EMPLOYEE BENEFITS

Pensions — The Authority participates in two defined benefit pension plans for their employees, the Manhattan and Bronx Surface Transit Operating Authority Pension Plan (MaBSTOA) and New York City Employees' Retirement System (NYCERS). A brief description of each of the pension plans follows:

Plan Descriptions

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

The Board of Administration, established in 1963, determines eligibility of employees and beneficiaries for retirement and death benefits. Article 12.08 of the MaBSTOA plan assigns authority to the MaBSTOA Board to establish and amend benefit provisions. 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 Authority and is reflected in the Pension Fund section of the Authority's basic financial statements.

The pension plan issues a publicly available financial report that includes financial statements and required supplementary information regarding the employee benefit plan. The report may be obtained by writing to MaBSTOA Pension Plan, New York City Transit Authority, 2 Broadway, 10th Floor, New York, New York, 10004 or at www.mta.info.

NYCERS — The NYCERS Plan 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 New York City Administrative Code, which are the basis by which benefit terms and employer and member contribution requirements are established and amended. The head of the retirement system is the Board of Trustees.

NYCERS issues a publicly available comprehensive annual financial report that includes financial statements and required supplementary information. 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 holding permanent civil service positions in the competitive or labor class are required to become members of the NYCERS six months after their date of appointment, but may voluntarily elect to join the NYCERS prior to their mandated membership date. All other eligible employees have the option of joining the 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.

Benefits Provided

MaBSTOA — MaBSTOA provides retirement, disability, death, and accident benefits to plan members and beneficiaries. The benefits provided by the Plan are generally similar to the benefits provided to participants in NYCERS. Benefits vest after either 5, 10, or 20 years of credited service, depending on the date of employment.

In 2008, NYCERS has 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 — Tier 1 members requires the completion of six months of service but completion of twenty years of service is required to receive a lump sum equal to the present value of the retirement benefit.

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.

Tiers 3 and 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 Salary (FAS) for the first 30 years of service plus 1.5% of FAS for years of service in excess of 30. FAS 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 FAS 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 Regular 55 and 25 Plan must be at least age 55 with the completion of at least 25 years of service, or be at least age 62 with the completion of at least 5 years of service, to be eligible to collect a service retirement benefit. Generally, the benefit for members with at least 25 years of service, is equal to 2.0% of 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 25 years of credited service, the benefit equals 1-2/3% of FAS 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 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.

Ordinary and Accidental Disability Benefits — For eligible members of the Regular 62 and 5 Plan, 55 and 25 Plan and 57 and 5 Plan, ordinary and accidental disability benefits, are provided after 10 years of service for ordinary and no service required for accidental. 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 Regular 62 and 5 Plan, 55 and 25 Plan, 57 and 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 and 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 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 earnings over five consecutive years.

Tier 6 members in the Basic 63 and 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 prior to age 63.

Ordinary and Accidental Disability Benefits — For eligible members of the 55 and 25 Special Plan and the Basic 63 and 10 Plan, ordinary and accidental disability benefits, are provided after 10 years of service for ordinary and no service required for accidental. 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 and 25 Special Plan and the Basic 63 and 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.

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%.

During March 2012, the Governor signed Chapter 18 of the Laws of 2012 that placed certain limitations on the Tier 3 and Tier 4 benefits available to participants who joined on and after April 1, 2012. In general, these changes, commonly referred to as Tier 6, increase the age requirement to 63 for most non-uniformed employees to retire and receive a full pension, require member contributions for all years of service for non-uniformed employees, institute progressive member contributions for non-uniformed employees, and lengthen the final average salary period from 3 to 5 years.

NYCERS provides automatic Cost-of-Living Adjustments (COLA), death benefits, accident, disability retirement benefits, and other supplemental pension benefits to certain retirees and beneficiaries. Members become fully vested as to benefits upon the completion of 5 years of service.

The State Constitution provides that pension rights of public employees are contractual and shall not be diminished or impaired. In 1973, 1976, 1983 and 2012, significant amendments made to the State Retirement and Social Security Law (RSSL) modified certain benefits for employees joining the Plan on or after the effective date of such amendments, creating membership tiers.

Membership

Membership in the MaBSTOA pension plan consisted of the following at January 1, 2018 and 2017, the date of the latest actuarial valuations:

	2018	2017
Active Plan Members	8,686	8,594
Retirees and beneficiaries receiving benefits	5,780	5,609
Vested formerly active members not yet receiving benefits	1,232	1,151
Total	15,698	15,354

Contributions and Funding Policy

MaBSTOA — The contribution requirements of plan members are established, approved and may be amended only by the MaBSTOA Board, in accordance with the Articles of the MaBSTOA plan. The financial objective of the Plan is to fund, on an actuarial basis, the retirement and death benefits for eligible MaBSTOA employees and beneficiaries. The Plan's funding policy is for periodic employer contributions to provide for actuarially determined amounts that are designed to accumulate sufficient assets to pay benefits when due. MaBSTOA contributions to the fund are made annually.

The MaBSTOA Pension Plan includes the following plans: (i.) the Tier 3 and 4 Transit Age 62 Plan; (ii.) the Tier 6 Age 63 Plan; (iii.) the 55/25 Plan; (iv.) the Tier 4 25 Year Early Retirement Plan; (v.) the Tier 4 Age 57 Plan, and (vi.) the 2000 amendments which are all under the same terms and conditions as NYCERS.

For employees, the 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 FAS under Tier 6, instead of 60% percent under Tier 4.

- Adjustments to the FAS 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 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.

Upon termination of employment before retirement, certain participants are entitled to refunds of their own contributions including accumulated interest less any loans outstanding.

The Authority's contributions to the MaBSTOA plan amounted to $206.4 million and $205.4 million for the years ended December 31, 2019 and 2018, respectively.

NYCERS — NYCERS funding policy is to contribute statutorily-required contributions (Statutory Contributions), determined by the Chief Actuary for the New York City Retirement System, 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.

The Authority is required to contribute at an actuarially determined rate. The Authority's contributions to NYCERS for the years ended December 31, 2019 and 2018 were $904.1 million and $768.4 million, respectively.

Net Pension Liability

The Authority's net pension liabilities for each of the pension plans reported at December 31, 2019 and 2018 were measured as of December 31, 2018 and 2017, respectively for the MaBSTOA plan and June 30, 2019 and 2018, respectively for NYCERS. The total pension liability for each of the pension plans were determined as of the actuarial valuation dates of January 1, 2018 and 2017 for MaBSTOA plan and June 30, 2018 and 2016 for NYCERS, respectively, and updated to roll forward the total pension liability to the respective year-ends. The fiduciary net position and additions to and deductions from the fiduciary net position have been determined on the same basis as reported by NYCERS and MaBSTOA. For this purpose, benefits and refunds are recognized when due and payable in accordance with the terms of the Plan; and investments are reported at fair value.

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Actuarial Assumptions

The total pension liability in each pension plan's actuarial valuation dates were determined using the following actuarial assumptions for each of the pension plans as follows:

	MaBSTOA		**NYCERS**	
Valuation Date:	**January 1, 2018**	**January 1, 2017**	**June 30, 2018**	**June 30, 2016**
Investment Rate of Return	7.00% per annum, net of investment expenses	7.00% per annum, net of investment expenses	7.00% per annum, net of investment expenses	7.00% per annum, net of investment expenses
Salary Increases	In general, merit and promotion increases, plus assumed General Wage increases of 3.5% per year to 15.0% for operating employees and 4.0% to 7.0% for nonoperating employees per year, depending on years of service.	In general, merit and promotion increases, plus assumed General Wage increases of 3.5% per year to 15.0% for operating employees and 4.0% to 7.0% for nonoperating employees per year, depending on years of service.	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.
Inflation	2.50%	2.50%	2.50%	2.50%
Cost-of Living Adjustments	1.375% per annum	1.375% per annum	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
Mortality	Pre-retirement and post-retirement 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. Mortality assumption is based on an experience study for the plan covering the period from January 1, 2011 to December 1, 2015.	Pre-retirement and post-retirement 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. Mortality assumption is based on an experience study for the plan covering the period from January 1, 2011 to December 1, 2015.	Mortality tables for service and disability pensioners were developed from an experience study of the plan. The mortality tables for beneficiaries were developed from an experience review.	Mortality tables for service and disability pensioners were developed from an experience study of the plan. The mortality tables for beneficiaries were developed from an experience review.
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.	N/A	N/A
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.	N/A	N/A
Post-retirement Disabled Lives	RP-2014 Disabled Annuitant mortality table for males and females.	RP-2014 Disabled Annuitant mortality table for males and females.	N/A	N/A

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Expected Rate of Return on Investments

The long-term expected rate of return on investments of 7.0% for both the MaBSTOA plan and NYCERS 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 allocations of each of the funds and the expected real rate of returns (RROR) for each of the asset class in the MaBSTOA plan and NYCERS were as of the measurement dates of December 31, 2018 and June 30, 2019, respectively, are summarized as follows:

	MaBSTOA Plan	
Asset Class	**Target Asset Allocation**	**Long-Term Expected Real Rate of Return**
US Core Fixed Income	9.00%	2.03%
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%	
Assumed Inflation — Mean		2.50%
Assumed Inflation — Standard Deviation		1.65%
Portfolio Arithmetic Mean Return as per Actuary		7.19%
Portfolio Standard Deviation		10.87%
Long Term Expected Rate of Return selected by MTA		7.00%

Asset Class	NYCERS Target Asset Allocation	NYCERS Long-Term Expected Real Rate of Return
U.S. Public Market Equities	29.00%	7.00%
International Public Market Equities	13.00%	7.10%
Emergining Public Market Equities	7.00%	9.40%
Private Market Equities	7.00%	10.50%
Fixed Income	33.00%	2.20%
Alternatives (Real Assets, Hedge Funds)	11.00%	5.70%
	100.00%	
Assumed Inflation — Mean		2.50%
Long Term Expected Rate of Return		7.00%

Discount Rate

The discount rate used to measure the total pension liability was 7.0% for both the MaBSTOA plan and NYCERS as of December 31, 2018 and June 30, 2019, respectively. 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 non-active 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 — MaBSTOA

The Authority's net pension liability for the MaBSTOA plan at the measurement date of December 31, 2018 and 2017 were as follows (in thousands):

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balance as of December 31, 2017	$ 3,676,475	$ 2,918,988	$ 757,487
Changes for fiscal year 2018:			
Service Cost	86,979	-	86,979
Interest on total pension liability	256,085	-	256,085
Effect of economic/demographic (gains) or losses	5,412	-	5,412
Benefit payments and withdrawals	(213,827)	(213,827)	-
Administrative expense	-	(196)	196
Member contributions	-	21,955	(21,955)
Net investment income	-	(87,951)	87,951
Employer contributions	-	205,433	(205,433)
Balance as of December 31, 2018	$ 3,811,124	$ 2,844,402	$ 966,722

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balance as of December 31, 2016	$ 3,536,747	$ 2,555,735	$ 981,012
Changes for fiscal year 2017:			
Service Cost	84,393	-	84,393
Interest on total pension liability	246,284	-	246,284
Effect of economic/demographic (gains) or losses	11,826	-	11,826
Effect of assumptions changes or inputs	6,347	-	6,347
Benefit payments and withdrawals	(209,122)	(209,122)	-
Administrative expense	-	(208)	208
Member contributions	-	19,713	(19,713)
Net investment income	-	350,186	(350,186)
Employer contributions	-	202,684	(202,684)
Balance as of December 31, 2017	$ 3,676,475	$ 2,918,988	$ 757,487

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

The following presents the Authority's net pension liability calculated using the current discount rate of 7.0% for the MaBSTOA Plan, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.0%) or 1-percentage point higher (8.0%) than the current rate used as of each 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)	
Net Pension Liability	$ 1,388,193	$ 966,722	$ 607,684	$ 1,166,477	$ 757,487	$ 409,121

The Authority's Proportion of Net Pension Liability — NYCERS

The following table presents the Authority's proportionate share of the net pension liability of NYCERS at the measurement date of June 30, 2019 and 2018, and the proportion percentage of the net pension liability of NYCERS allocated to the Authority:

	June 30, 2019	June 30, 2018
	(in millions)	
The Authority's proportion of the net pension liability	23.271 %	22.527 %
The Authority's proportionate share of the net pension liability	$ 4,310.22	$ 3,973.23

The Authority's proportion of the net pension liability was based on the Authority's actual contributions made to NYCERS for the years ended June 30, 2019 and 2018, relative to the contributions of all employers in the plan.

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

The following table presents the Authority's proportionate share of the net pension liability calculated using the discount rate of 7.0% for NYCERS, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.0%) or 1-percentage point higher (8.0%) than the current rate used as of each 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%)
		(in thousands)			(in thousands)	
The Authority's proportionate share of the net pension liability	$ 6,648,704	$ 4,310,223	$ 2,335,795	$ 6,090,641	$ 3,973,233	$ 2,186,848

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

For the years ended December 31, 2019 and 2018, the Authority recognized pension expense, gross of reimbursements, related to each pension plan as follows (in thousands):

	December 31,	
Pension Plans	**2019**	**2018**
MaBSTOA	$ 171,073	$ 126,833
NYCERS	915,057	509,342
Total	$ 1,086,130	$ 636,175

For the years ended December 31, 2019 and 2018, the Authority's reported deferred outflow of resources and deferred inflow of resources for each pension plan as follows (in thousands):

For the Year Ended December 31, 2019	MaBSTOA		NYCERS		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	$ 20,188	$ 25,455	$ 360,418	$ 299,411	$ 380,606	$ 324,866
Changes in actuarial assumptions	4,394	-	2,753	180,733	7,147	180,733
Net difference between projected and actual earnings on pension plan investments	148,979	-	-	267,447	148,979	267,447
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	163,386	14,203	163,386	14,203
Employer contributions to plan subsequent to the measurement date of net pension liability	206,390	-	432,827	-	639,217	-
Total	$ 379,951	$ 25,455	$ 959,384	$ 761,794	$ 1,339,335	$ 787,249

For the Year Ended December 31, 2018	MaBSTOA Deferred Outflows of Resources	MaBSTOA Deferred Inflows of Resources	NYCERS Deferred Outflows of Resources	NYCERS Deferred Inflows of Resources	Total Deferred Outflows of Resources	Total Deferred Inflows of Resources
Differences between expected and actual experience	$ 19,549	$ 36,673	$ -	$ 383,748	$ 19,549	$ 420,421
Changes in actuarial assumptions	5,370	-	60,549	-	65,919	-
Net difference between projected and actual earnings on pension plan investments	-	83,734	-	222,843	-	306,577
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	46,817	17,273	46,817	17,273
Employer contributions to plan subsequent to the measurement date of net pension liability	205,433	-	388,077		593,510	-
Total	$ 230,352	$ 120,407	$ 495,443	$ 623,864	$ 725,795	$ 744,271

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 plans to amortize the annual differences between expected and actual experience and the changes in proportion and differences between employer contributions and proportionate share of contributions, 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**
MaBSTOA	6.50	N/A	6.50
NYCERS	6.10	6.10	6.10

For the years ended December 31, 2019 and 2018, $639.2 million and $593.5 million, respectively were reported as deferred outflows of resources related to pensions resulting from the Authority's contributions subsequent to the measurement dates. The amount of $639.2 million will be recognized as a reduction of the net pension liability in the year-ended December 31, 2020. 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 (in thousands):

Year Ending December 31:	MaBSTOA	NYCERS	Total
2020	$ 45,985	$ (61,168)	$ (15,183)
2021	9,282	(184,928)	(175,646)
2022	26,928	(44,333)	(17,405)
2023	63,265	(10,624)	52,641
2024	2,230	59,763	61,993
Thereafter	416	6,053	6,469
Total	$ 148,106	$(235,237)	$ (87,131)

Deferred Compensation Plans — As permitted by Internal Revenue Code Section 457, the Authority has established a trust or custodial account to hold plan assets for the exclusive use of the participants and their beneficiaries. Plan assets and liabilities are not reflected on the Authority's consolidated statements of net position.

Certain Authority employees are participants in a second deferred compensation plan established in accordance with Internal Revenue Code Section 401(k). Participation in the plan is available to all nonunion and certain other employees. All amounts of compensation deferred under the plan, and all income attributable to such compensation, are solely the property of the participants; accordingly, this plan is not reflected in the accompanying consolidated statements of net position. The Authority is not required to contribute to the plan.

7. OTHER POSTEMPLOYMENT BENEFITS

The Authority 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:

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 and related agencies retired employees and their eligible spouses and dependents, to fund some of the OPEB provided in accordance with the Authority'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 cost-sharing multiple-employer defined benefit OPEB plan.

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

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

Benefits Provided — The benefits provided by the OPEB Plan include medical, pharmacy, dental, vision, life insurance and a Medicare supplemental plan. The different types of benefits provided vary by 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. The Authority provides benefits to certain former employees if separated from service within 5 years of attaining retirement eligibility. Employees of the Authority are members of NYCERS and the MaBSTOA Plan.

The Authority 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 and other New York City Transit employees who retired prior to January 1, 1996 or January 1, 2001, 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 Authority 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 Authority must:

(a) have retired;

(b) be receiving a pension;

(c) have at least 10 years of credited service as a member of NYCERS or the MaBSTOA Plan; and

(d) 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, 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;

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.

Contributions — The Authority 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 Authority paid $505.6 million and $468.8 million of PAYGO to the OPEB Plan, respectively. The PAYGO amounts included an implicit rate subsidy adjustment of $21.3 million and $19.9 million for the years ended December 31, 2019 and 2018, respectively.

During 2012, the MTA funded $250 million into the Trust and an additional $50 million during 2013. There have been no further contributions made to the Trust. The discount rate estimates investment earnings for assets earmarked to cover retiree health benefits. Under GASB Statement No. 75, the discount rate depends on the nature of underlying assets for funded plans. Since the amount of benefits paid in 2017 exceeded the current market value of the assets, a depletion date is assumed to occur immediately. Therefore, the discount rate is set equal to the municipal bond index. The MTA elected the Bond Buyer 20-Bond General Obligation 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 year ended December 31, 2018 and 2017, the employer made a cash payment for retiree healthcare of $19.9 million and $19.6 million, 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	$ 448,835	$ 422,260
Employment payment for retiree healthcare	19,928	19,619
Net payments	$ 468,763	$ 441,879

Net OPEB Liability

The Authority's proportionate share of the Plan's net OPEB liability reported at December 31, 2019 and 2018 was measured as of the OPEB Plan's fiscal year-end of December 31, 2018 and 2017, respectively. The total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation date of July 1, 2017, and rolled forward to December 31, 2017 and 2018. The Authority's proportion of the net OPEB liability was based on a projection of the Authority's long-term share of contributions to the OPEB Plan relative to the projected contributions of all participating employers. The following table presents the Authority's proportionate share of the net OPEB liability and corresponding proportion percentage at the measurement date:

	December 31, 2018	December 31, 2017
	(in thousands)	
The Authority's proportion of the net OPEB liability	67.826 %	67.878 %
The Authority's proportionate share of the net OPEB liability	$ 13,281,035	$ 13,783,851

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.

Actuarial Assumptions

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

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

The total OPEB liability was determined by an actuarial valuation performed on July 1, 2017. Update procedures were used to roll forward the total OPEB liability to December 31, 2017 and 2018, 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	4.10%	3.44%
Inflation	2.50%	2.50%
Actuarial cost method	Entry Age Normal	Entry Age Normal
Investment rate of return	6.50%	6.50%

Salary Scale — Salary increases vary by years of service and differ for members of NYCERS and the MaBSTOA Plan. Rates are shown below for December 31, 2018 and 2017:

	NYCERS		MaBSTOA	
Years of Service	Rate of Increase	Years of Service	Operating Employee Rate	Non-operating Employee Rate
0	19.0 %	0	12.0 %	5.5 %
1	14.0	1	15.0	7.0
2	10.0	2	15.0	7.0
3	7.0	3	6.0	6.3
4	5.0	4	3.5	5.0
5	4.0	5+	3.5	4.0
6+	3.5			

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 the Authority. Long-term trend increases are 4% for dental and vision benefits and 4.5% for Medicare Part B reimbursements, but no more than projected medical and pharmacy trends. The self-insured trend is applied directly for represented employees.

The valuation reflects the actuaries 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 Authority’s OPEB liability is a decrease of $523.0 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 for December 31, 2018 and 2017:

	NYSHIP Trend		Self-Insured Trend	
Year Ending	**Pre-65**	**Post-65**	**Pre-65**	**Post-65 Trend**
2018	8.50 %	8.20 %	6.80 %	9.10 %
2019	6.20 %	5.50 %	6.20 %	5.30 %
2020	5.80 %	5.30 %	5.80 %	5.20 %
2021	5.50 %	5.20 %	5.50 %	5.20 %
2022	7.20 %	5.10 %	11.10 %	5.10 %
2023	6.10 %	5.10 %	6.00 %	5.10 %
2024	6.10 %	5.00 %	5.90 %	5.00 %
2025	5.90 %	5.00 %	5.80 %	5.00 %
2026	5.90 %	5.00 %	5.80 %	5.00 %
2027	5.80 %	4.90 %	5.70 %	4.90 %
2037	5.60 %	5.00 %	5.50 %	5.00 %
2047	5.40 %	5.90 %	5.30 %	4.90 %
2057	5.10 %	5.40 %	5.10 %	5.20 %
2067	4.80 %	5.00 %	4.80 %	4.80 %
2077	4.20 %	4.30 %	4.10 %	4.50 %
2087	4.10 %	4.20 %	4.10 %	4.40 %
2097	4.10 %	4.20 %	4.10 %	4.40 %

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, 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 MaBSTOA pension plan.

Preretirement — RP-2000 Employee Mortality Table for Males and Females with blue-collar adjustments.

Postretirement Healthy Lives — 95% of 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.

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

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
US Core Fixed Income	13.00%	2.03%
Global Bonds	15.00%	0.41%
Emerging Market Bonds	5.00%	3.76%
Global Equity	35.00%	5.65%
Non-US Equity	15.00%	6.44%
Global REITs	5.00%	5.80%
Hedge Funds — MultiStrategy	12.00%	3.28%
	100.00%	

Assumed Inflation — Mean	2.50%
Assumed Inflation — Standard Deviation	1.65%
Portfolio Arithmetic Mean Return as per Actuary	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 and 2017 of 4.10% and 3.44%, respectively.

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Sensitivity of the Authority's Proportionate Share of the Net OPEB Liability to Changes in the Discount Rate — The following presents the Authority's proportionate share of the net OPEB liability, as well as what the Authority's proportionate share of the 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:

	December 31, 2018			December 31, 2017		
	1% Decrease (3.10%)	Discount Rate (4.10%)	1% Increase (5.10%)	1% Decrease (2.44%)	Discount Rate (3.44%)	1% Increase (4.44%)
		(in thousands)			(in thousands)	
Proportionate share of the net OPEB liability	$ 15,194,985	$ 13,281,035	$ 11,705,018	$ 15,888,151	$ 13,783,851	$ 12,093,955

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

	December 31, 2018			December 31, 2017		
	1% Decrease	Healthcare Cost Current Trend Rate *	1% Increase	1% Decrease	Healthcare Cost Current Trend Rate *	1% Increase
		(in thousands)			(in thousands)	
Proportionate share of the net OPEB liability	$ 11,345,745	$ 13,281,035	$ 15,716,167	$ 11,806,693	$ 13,783,851	$ 16,320,436

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

OPEB Expense, Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the year ended December 31, 2019 and 2018, the Authority recognized OPEB expense of $1.1 billion and $1.2 billion, respectively, which represents its proportionate share of the Plan's OPEB expense.

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, changes in assumptions and the changes in proportion and differences between employer contributions and proportionate share of contributions are amortized over a 7.4-year close period, beginning the year in which the deferred amount occurs.

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

	December 31, 2019		December 31, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 6,734	$ 11,381	$ 7,987	$ -
Changes in assumptions	451,129	1,055,971	535,075	-
Net difference between projected and actual earnings on OPEB plan investments	12,591	-	-	14,323
Changes in proportion and differences between contributions and proportionate share of contributions	7,654	-	-	-
Employer contributions to the plan subsequent to the measurement of net OPEB liability	505,639	-	468,763	-
Total	$ 983,747	$ 1,067,352	$ 1,011,825	$ 14,323

For the year ended December 31, 2019 and 2018, $505.6 million and $468.8 million, respectively, were reported as deferred outflows of resources related to OPEB resulting from both the Authority's contributions subsequent to the measurement date and an implicit rate subsidy adjustment. The amount of $505.6 million 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:

Year ending December 31:	
2020	$ (78,535)
2021	(78,535)
2022	(78,535)
2023	(74,957)
2024	(80,789)
Thereafter	(197,893)
Total	$ (589,244)

8. LOANS PAYABLE

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 the Authority, as an affiliate of the MTA, to enter into a Customer Installation Commitment (CIC) with NYPA for turn-key, energy efficiency projects, which would usually be long-term funded and constructed by NYPA. The repayment period for the NYPA loan can be up to 20 years, but can be repaid at any time without penalty.

The debt service requirements at December 31, 2019 are as follows (in thousand):

Year	Principal	Interest	Total
2020	$ 9,708	$ 1,778	$ 11,486
2021	9,214	1,554	10,768
2022	8,022	1,346	9,368
2023	6,052	1,185	7,237
2024	6,061	1,042	7,103
2025–2029	26,757	3,091	29,848
2030–2034	14,323	596	14,919
Total	$ 80,137	$ 10,592	$ 90,729
Less current portion	9,708		
Long-term loans payable	$ 70,429		

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.

9. RELATED PARTY TRANSACTIONS

The Authority receives support services from the MTA in the areas of budget, cash management, finance, legal, real estate, treasury, risk and insurance management, and other services, most of which are charged back to the Authority through intercompany billings. The MTA also provides funding for the Authority's capital program via MTA debt issuance, federal capital grant pass-throughs, and proceeds from the sale of tax benefits on leasing transactions. The Authority recognizes funds contributed to Transit capital programs as contributed capital in the consolidated statements of revenues, expenses, and changes in net position. State and City tax — supported subsidies received by the Authority from the MTA to support operations are recorded as nonoperating revenues. The MTA also provides short-term loans, as required, to supplement the Authority's working capital needs.

The Authority has intercompany transactions with MNCR, LIRR, MTA Bus, TBTA, and SIRTOA related to farecard settlements, service agreements, shared operating contracts, inter-agency loan transactions, and other operating receivables and payables.

The resulting receivables and payables from the above transactions are recorded in Due from MTA and constituent authorities and Due from MTA for the purchase of capital assets, included in the accompanying consolidated statements of net position.

Related party transactions consist of the following at December 31, 2019 and 2018 (in thousands):

	2019		2018	
	Receivable	(Payable)	Receivable	(Payable)
MTA	$8,074,712	$ (7,688,823)	$8,185,011	$ (7,017,255)
Constituent authorities	94,962	(14,017)	110,582	(11,026)
Total MTA and constituent authorities	$8,169,674	$ (7,702,840)	$8,295,593	$ (7,028,281)

10. ADVERTISING AND OTHER INCOME

Advertising and other income for the years ended December 31, 2019 and 2018, consist of (in thousands):

	2019	2018
Advertising revenue	$ 112,002	$ 112,186
Metrocard green fee surcharge	22,898	22,274
Transit Adjudication Bureau collections	12,874	9,539
Station income	5,625	6,582
Rental income	11,359	9,976
Fare media transaction fees	4,861	4,560
All other	111	219
	$ 169,730	$ 165,336

11. OTHER EXPENSES

Other expenses for the years ended December 31, 2019 and 2018, consist of (in thousands):

	2019	2018
Credit and debit card fees for fare media sales	$54,274	$50,956
Fare media sales commissions	12,509	12,780
NYS Metro Commuter Transportation Mobility Tax expense	15,189	15,388
Print and office supplies	6,351	7,455
Allowance for uncollectible accounts	277	1,407
Business travel, meetings, and conventions	412	631
Dues and subscriptions	1,688	437
Other miscellaneous expenses	7,402	(961)
	$98,102	$88,093

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12. MAINTENANCE AND OTHER OPERATING EXPENSES

Maintenance and other operating expenses for the years ended December 31, 2019 and 2018, consist of (in thousands):

	2019	2018
Operating maintenance and repair services	$112,111	$105,276
Facility maintenance and repairs	14,059	16,555
Real estate rentals (including 2 Broadway operating expenses)	23,513	24,085
Security services	14,650	13,172
Refuse and recycling	11,315	8,063
Telephone services	5,627	7,594
Tire and tube rentals	14,660	14,131
Janitorial and custodial services	6,906	5,734
Water and sewage	9,968	6,949
Specialized equipment	3,632	1,281
Bridge, tunnel and highway tolls	5,331	4,835
Uniforms	4,317	4,404
Ticket stock material	3,878	3,198
Safety equipment and supplies	14,139	11,263
Environmental/hazardous waste removal	22,764	-
Other miscellaneous expenses	17,101	7,423
	$283,971	$233,963

13. 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 the active ultra-low sulfur diesel (ULSD) hedges in whole dollars:

Counterparty	**Goldman Sachs**	**Goldman Sachs**	**Goldman Sachs**	**Macquarie Energy LLC**	**Goldman Sachs**	**Goldman Sachs**
Trade Date	1/31/2018	2/28/2018	3/28/2018	4/24/2018	5/29/2018	6/26/2018
Effective Date	1/1/2019	2/1/2019	3/1/2019	4/1/2019	5/1/2019	6/1/2019
Termination Date	12/31/2019	1/31/2020	2/29/2020	3/31/2020	4/30/2020	5/31/2020
Price/Gal	$1.96	$1.88	$1.98	$2.08	$2.16	$2.18
Notional Qnty (Gal)	2,870,565	2,786,237	2,853,500	2,799,258	2,841,090	2,841,069
Counterparty	**BOA_ Merrill**	**Goldman Sachs**	**Goldman Sachs**	**Cargill**	**BOA_ Merrill**	**BOA_ Merrill**
Trade Date	7/31/2018	8/29/2018	9/25/2018	10/30/2018	11/27/2018	1/3/2019
Effective Date	7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019
Termination Date	6/30/2020	7/31/2020	8/31/2020	9/30/2020	10/31/2020	11/30/2020
Price/Gal	$2.17	$2.21	$2.29	$2.25	$1.92	$1.79
Notional Qnty (Gal)	2,820,856	2,831,924	2,831,922	2,831,934	3,023,197	2,856,019
Counterparty	**Cargill**	**Cargill**	**Goldman Sachs**	**Goldman Sachs**	**Goldman Sachs**	**Goldman Sachs**
Trade Date	1/29/2019	2/28/2019	3/28/2019	4/30/2019	5/28/2019	6/25/2019
Effective Date	1/1/2020	2/1/2020	3/1/2020	4/1/2020	5/1/2020	6/1/2020
Termination Date	12/31/2020	1/31/2021	2/28/2021	3/31/2021	4/30/2021	5/31/2021
Price/Gal	$1.94	$2.05	$2.00	$2.07	$1.97	$1.92
Notional Qnty (Gal)	2,856,014	2,793,123	2,849,714	2,874,889	2,851,286	2,851,258
Counterparty	**Goldman Sachs**	**Macquarie Energy LLC**	**BOA_ Merrill**	**Goldman Sachs**	**Goldman Sachs**	**BOA_ Merrill**
Trade Date	7/30/2019	8/27/2019	9/30/2019	10/29/2019	11/26/2019	12/30/2019
Effective Date	7/1/2020	8/1/2020	9/1/2020	10/1/2020	11/1/2020	12/1/2020
Termination Date	6/30/2021	7/31/2021	8/31/2021	9/30/2021	10/31/2021	11/30/2021
Price/Gal	$1.89	$1.78	$1.81	$1.84	$1.86	$1.90
Notional Qnty (Gal)	2,788,533	2,842,790	2,844,946	2,839,784	2,839,778	2,839,796

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 Authority will take delivery of the fuel. As of December 31, 2019, the total outstanding notional value of the ULSD contracts was $52.5 million gallons with a negative fair market value of $1.3 million. 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).

The Transit Authority recognized a fuel hedge loss of $1.3 million in 2019 and 2018.

14. RISK MANAGEMENT

The Authority is exposed to various risks of loss related to torts; theft of, damage to, and destruction of its assets; injuries to persons, including employees; and natural disasters.

The Authority is self-insured up to certain per occurrence limits for liability claims arising from injuries to persons, excluding employees. For claims arising from incidents that occurred on or after November 1, 2001, but before November 1, 2006, the self-insured retention limit was $7 million per occurrence. Claims arising on or after November 1, 2006, but before November 1, 2009 were subject to an $8 million limit. Effective November 1, 2009, the retention limit was increased to $9 million per occurrence and effective November 1, 2012, the retention limit was increased to $10 million. Effective October 31, 2015, the self-insured retention limit was increased to $11 million. Lower limits applied for claims arising prior to November 1, 2001. The Authority is self-insured for work-related injuries to employees. The annual cost associated with injuries to persons, other than employees, and damage to third-party property, is reflected in expenses as public liability claims in the accompanying consolidated statements of revenues, expenses and change in net position.

The Authority establishes its liability for injuries to employees and to the general public on the basis of independent actuarial estimates of future liability.

A summary of activity in estimated liability arising from injuries to persons, including employees, and damage to third-party property, for the years ended December 31, 2019 and 2018, is as follows (in thousands):

	2019	2018
Balance at beginning of year	$3,085,410	$2,799,384
Activity during the year:		
Current year claims and changes in estimates	575,555	587,166
Claims paid	(347,636)	(301,140)
Balance at end of year	3,313,329	3,085,410
Less current portion	(320,694)	(297,223)
Long-term liability	$2,992,635	$2,788,187

Liability Insurance — First Mutual Transportation Assurance Company (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 limit is: $8 million for the Authority. For claims arising from incidents that occurred on or after November 1, 2009, but before November 1, 2012, the self-insured retention limit is: $9 million for Authority. Effective November 1, 2012, the self-insured retention limits for ELF was increased to $10 million for the Authority. Effective October 31, 2015 the self-insured retention limit for ELF was increased to $11 million for the Authority. 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 million. 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 million per occurrence with a $50 million annual aggregate. FMTAC charges appropriate annual premiums based on loss experience and exposure analysis to maintain the fiscal viability of the program. On December 31, 2019, the balance of the assets in this program was $164.1 million.

MTA also maintains an All-Agency Excess Liability Insurance Policy that affords the MTA Group additional coverage limits of $350 million for a total limit of $400 million ($350 million excess of $50 million). 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 million.

On March 1, 2019, the “nonrevenue fleet” automobile liability policy program was renewed. This program provides third-party auto liability insurance protection for the MTA Group with the exception of the Authority.

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

Property Insurance — Effective May 1, 2019, FMTAC renewed the all-agency property insurance program. For the annual period commencing May 1, 2019, FMTAC directly insures property damage claims of the Related Entities in excess of a $25 million per occurrence deductible, subject to an annual $75 million aggregate deductible. The total All Risk program annual limit is $575 million 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 million per occurrence. The property insurance policy provides replacement cost coverage for all risks (including Earthquake, Flood and Wind) of direct physical loss or damage to all real and personal property, with minor exceptions. The policy also provides extra expense and business interruption coverage.

Supplementing the $575 million per occurrence noted above, FMTAC’s property insurance program has been expanded to include of $125 million of fully collateralized earthquake coverage for an event of a certain index value and for storm surge coverage for losses from storm surges that surpass specified trigger levels in the New York Harbor or Long Island Sound and are associated with named storms that occur at any point in the three year period from May 23, 2017 to April 30, 2020. The expanded protection is reinsured by MetroCat Re Ltd. 2017-1, a Bermuda special purpose insurer independent from the MTA and formed to provide FMTAC with capital markets based property reinsurance. The MetroCat Re Ltd. 2017-1 reinsurance policy is fully collateralized by a Regulation 114 trust invested in U.S. Treasury Money Market Funds. The additional coverage provided is parametric and available for storm surge losses resulting from a storm that causes water levels that reach the specified index values, and also for an earthquake event of a certain index value.

With respect to acts of terrorism, FMTAC provides direct coverage that is reinsured by the United States Government for 81% of “certified” losses in 2019 and 80% of “certified” losses in 2020, as covered by the Terrorism Risk Insurance Program Reauthorization Act (TRIPRA) of 2015. The remaining 19% (2019) and 20% (2020) of the Related Entities’ losses arising from an act of terrorism would be covered under the additional terrorism policy described below. No federal compensation will be paid unless the aggregate industry insured losses exceed a trigger of $180 million in 2019 and $200 million in 2020. In December 2019, the United States government’s reinsurance was extended until 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) 19% of any “certified” act of terrorism up to a maximum recovery of $204.3 million for any one occurrence and in the annual aggregate during 2019 and 20% of any “certified” act of terrorism up to a maximum recovery of $215 million for any one occurrence and in the annual aggregate during 2020, (2) the TRIPRA FMTAC captive deductible (per occurrence and on an aggregated basis) that applies when recovering under the “certified” acts of terrorism insurance or (3) 100% of any “certified” terrorism loss which exceeds $5 million and less than the $180 million TRIPRA trigger up to a maximum recovery of $180 million for any occurrence and in the annual aggregate during 2019 or 100% of any “certified” terrorism loss which exceeds $5 million and less than the $200 million TRIPRA trigger up to a maximum recovery of $200 million for any occurrence and in the annual aggregate during 2020.

Additionally, MTA purchases coverage for acts of terrorism which are not certified under TRIPRA to a maximum of $204.3 million in 2019 and $215 million in 2020, Recovery under the terrorism policy is subject to a deductible of $25 million per occurrence and $75 million 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 million future losses in that policy year are subject to a deductible of $7.5 million. The terrorism coverages expire at midnight on December 31, 2020.

During 2019 there were FMTAC excess loss claim reimbursements of $0.867 million to the Authority. FMTAC had open claims for the Authority at December 31, 2019. At December 31, 2019, FMTAC had $971 million of assets to insure current and future claims.

15. CONTINGENCIES

The Authority is involved in various litigation and claims involving personal liability claims and certain other matters. The ultimate outcome of these claims and suits cannot be predicted at this time. Nevertheless, management does not believe that the ultimate outcome of these matters will have a material effect on the consolidated financial position of the Authority.

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 questioned costs may occur, ultimate repayments required of the MTA or the Authority have been infrequent in prior years.

In accordance with GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*, in 2019 and 2018, the Authority recognized $27.5 million and $84.1 million, respectively, in pollution remediation expenses. The expense provision was measured at its current value utilizing the prescribed expected cash flow method (see Note 2). Pollution remediation obligations are estimates and subject to changes resulting from price increases or reductions, technology, or changes in applicable laws or regulations. The Authority does not expect any recoveries of cost that would have a material effect on the recorded obligations.

A summary of the activity in pollution remediation liability at December 31, 2019 and 2018, were as follows (in thousands):

	2019	2018
Balance at beginning of year	$ 77,568	$ 32,425
Activity during the year:		
Changes in estimates	27,548	84,138
Payments	(22,256)	(38,995)
Balance at end of year	82,860	77,568
Less current portion	(16,572)	(15,514)
Long-term liability	$ 66,288	$ 62,054

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

16. CONDENSED COMPONENT UNIT INFORMATION

The following table presents condensed financial information for MaBSTOA, a blended component unit of the Authority (in thousands):

December 31:	**2019**	**2018**
Current assets	$ 365,804	$ 252,012
Capital assets	629,767	483,573
Deferred outflows of resources	379,951	230,352
Total assets and deferred outflows of resources	1,375,522	965,937
Current liabilities	274,751	265,731
Non-current liabilities	1,748,792	1,508,406
Deferred inflows of resources	25,455	120,407
Total liabilities and deferred inflows of resources	2,048,998	1,894,544
Net Investment in capital assets	629,767	483,573
Unrestricted	(1,303,243)	(1,412,180)
Total net position	$ (673,476)	$ (928,607)
For the Year Ended December 31:		
Fare revenue	$ 430,417	$ 429,700
Advertising and other revenue	15,714	15,654
Total operating revenue	446,131	445,354
Total labor expenses	1,127,291	1,100,959
Total non-labor expenses	126,099	128,065
Depreciation	77,727	62,868
Total operating expenses	1,331,117	1,291,892
Operating (deficit) surplus	(884,986)	(846,538)
Loss before capital contributions	(884,986)	(846,538)
Capital contributions	1,140,117	3,262,040
Change in net position	255,131	2,415,502
Net position, beginning of the year	(928,607)	(3,344,109)
Net position, end of year	$ (673,476)	$ (928,607)

17. SUBSEQUENT EVENTS

Updated assessment of impacts from the novel coronavirus (COVID-19) pandemic on the Authority's finances and operations:

- *Background relating to the global coronavirus pandemic* – The COVID-19 outbreak is continuing to have an adverse and severe impact on MTA's financial condition and operating results. 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 12, 2020, the World Health Organization declared the COVD-19 outbreak to be a pandemic in the face of the global spread of the virus. The COVID-19 pandemic has dramatically altered the behavior of businesses and people in a manner that is having negative effects on global and local economies. In addition, stock markets in the U.S. and globally, have seen significant declines and volatility attributed to concerns over COVID-19, and capital markets remain disrupted. These adverse impacts have intensified and continue to evolve daily globally, nationally, and particularly within the State and the Authority's service area, which has become the most severely impacted region in the United States, with the most confirmed cases of infection, and regrettably the most fatalities, from COVID-19. On March 7, 2020 Governor Cuomo declared a Disaster Emergency in the State of New York and on March 13, 2020 President Trump declared a national state of emergency as a result of the COVID-19 pandemic. In addition, by order of Governor Cuomo (New York State on PAUSE), as of Sunday, March 22nd, all non-essential businesses statewide were required to be closed, among other restrictive social distancing and related measures. These related measures, most recently, include by Governor's Executive Order, that effective at 8 p.m. on Friday, April 17, 2020 any individual who is over age two and able to medically tolerate a face-covering shall be required to cover their nose and mouth with a mask or cloth face-covering when in a public place and unable to maintain, or when not maintaining, social distance. New York State on PAUSE restrictions remain in place at least through May 15, 2020. This intervention to fight the aggressive spread of the COVID-19 pandemic has further eroded already severely diminished public transportation usage during the duration of the COVID-19 pandemic.

- *Currently adopted Federal legislative and administrative actions* – The Federal government has taken several actions which are expected to provide flexibility and substantial additional funding to the Authority. The Federal Transit Administration (FTA) has given transit grantees, including the Authority, the flexibility to apply certain existing grant program proceeds, previously only available for capital expenditures, to operating expenses or other purposes to address COVID-19 pandemic impacts.

  In addition, Federal emergency legislation, the "Coronavirus Aid, Relief and Economic Security Act" or "CARES Act", received final passage by Congress and was signed into law by the President on March 27, 2020. The CARES Act through FTA's formula funding provisions is expected to provide approximately $3.8 billion to MTA. Funding will be provided at a 100 percent Federal share, with no local match required, and will be 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.

  The Authority is also eligible for FEMA payments in addition to the CARES Act funding. FEMA will cover expenses that are over and above normal costs that are related to COVID-19, such as sanitizing Authority facilities and safety at job sites to ensure COVID -19 regulations are being adhere to.

- *Updated assessment of 2020 impacts of the COVID-19 pandemic and economic study analysis* – On April 16, 2020, MTA Chairman and Chief Executive Officer Patrick J. Foye wrote to the New York State Congressional delegation, urging Congressional action to provide an additional $3.9 billion in Federal grant assistance "to stem the immediate hemorrhaging in the MTA's 2020 operating budget". Such aid would be supplemental to the approximately $3.8 billion contained in the CARES Act, and would have to be included in any upcoming new Congressional COVID-19 aid package, and is also exclusive of any capital infrastructure stimulus funding to be considered by Congress and the Administration.

  The CARES Act funding amounts for MTA derived from a conservative estimate based on the information MTA management had at the time. A clearer picture of the impact of the crisis has emerged over the last few weeks, and now with the aid of a detailed economic study led by McKinsey & Company (the "McKinsey Report"), MTA management projects the full 2020 financial impact of the COVID-19 crisis to the MTA to be between $7.0 and $8.5 billion. After the receipt of the expected $3.8 billion under the CARES Act, the net financial impact in 2020 is estimated to be between $3.2 and $4.7 billion. The $3.9 billion request is the midpoint of this range.

  Compared to 2019 results, ridership has now declined 93 percent on the subways and buses. Based on the current ridership and reasonable forecasts of a slow return to higher (but not pre-COVID-19 pandemic) levels in 2020, MTA, based upon projections in the McKinsey Report, expects to see combined losses in fare and toll revenues of between $4.7 and $5.9 billion in 2020, and additional impacts in 2021. Projections for 2021 are of necessity more speculative at this time and were beyond the scope of the McKinsey Report.

  Moreover, the McKinsey Report, based upon limited available data, forecasts losses of between $1.6 and $1.8 billion in State and local taxes dedicated to MTA in 2020 as a result of the extraordinary economic downturn facing the region and nation.

  Finally, MTA is also incurring additional expenses related to ensuring the safety of employees and riders, by disinfecting stations, rolling stock and work spaces to a new, even more costly level. The McKinsey Report estimates these incremental operational expenses for 2020 to be between $700 and $800 million (inclusive of a portion of the $300 million COVID-19 annualized costs estimate referred to in the March 25th Supplement). The dedication of MTA workers has come at the highest cost in illness and loss of life. Sixty-eight MTA employees have tragically passed away due to COVID-19. The Authority alone has more than 2,400 subway and bus employees who have tested positive for COVID-19. Another 4,400 are on home quarantine and thousands more are calling out sick. MTA does not expect those overhead costs to decline, but instead to increase as ridership returns.

  The McKinsey Report provided an estimate of the shortfalls discussed below through the end of calendar year 2020, ranging between $3.2 and $4.7 billion after accounting for the $3.8 billion the MTA is expected to receive through the CARES Act.

  By way of background to the McKinsey Report forecasts, on March 17, 2020, five days before the stay-at-home order went into effect for New York State, MTA projected that it would face a 2020 budget shortfall of at least $4 billion in fare and toll revenues, based upon then current ridership and bridge and tunnel crossings declines. This estimate explicitly did not take into account the impact of the COVID-19 pandemic on taxes and other dedicated revenue streams that support MTA's operations. Approximately, one month later, it is now clear that the COVID-19 pandemic is more severe and of longer duration than had been anticipated. The impact to the Authority's finances is material and leaves a gap that must be filled in order to sustain normal operations. The Authority has begun refining the fare revenue loss projections to reflect these changes, as well as projecting losses in the tax and other subsidy revenues that generally make up approximately one-half of MTA's total revenue sources. McKinsey & Company was contracted by MTA to analyze the potential impact of the COVID-19 pandemic on MTA's 2020 calendar year revenues, including the Authority.

As noted above, this analysis did not attempt to capture the impact of the COVID-19 pandemic on Authority's finances in 2021. A view of 2021 will need to be developed when the key factors that influence it; the course of the virus, public health responses, including social isolation measures, and the trajectory of the economic recovery, can be seen with greater clarity. The McKinsey Report focused on operating costs and did not make any assumptions related to additional capital expenditures that the Authority may incur over the course of the COVID-19 pandemic. It is limited to giving an initial view of additional operating costs.

In general, the McKinsey Report reviewed two scenarios for how revenues may be affected in the full calendar year 2020. The scenarios developed reflected different assumptions for how transit ridership will behave across several variables. The report further analyzed MTA's dedicated revenue streams and the impact of the COVID-19 pandemic on the variety of economic activity that generates much of the dedicated tax component of this revenue stream. The estimated incremental negative revenue impacts on MTA, including the Authority, after accounting for the CARES Act assistance of $3.8 billion, ranged from $3.2 billion to $4.7 billion. The midpoint between these two scenarios, $3.9 billion, was selected as the basis of MTA's April 16th request to Congress.

There is substantial risk that the higher end of the range could materialize based on uncertainties in the course of the COVID-19 pandemic, the speed of development and mass promulgation of high-volume clinical testing and protocols, the availability of medical supplies and equipment, continued public adherence to protective policies, and Federal policy response.

- *MTA liquidity resources* – MTA currently has liquidity resources, consisting of a current running cash balance, internal available flexible funds, OPEB resources and commercial bank lines of credit totaling $1.201 billion ($1.0 billion of which has been drawn). *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.*

  Longer-term resource options to address the COVID-19 pandemic impacts, may include, but are not limited to, (i) approximately $4 billion in federal emergency transit grants pursuant to the CARES Act, (ii) replacing programmed pay-as-you-go capital funds with long term bonding, (iii) various debt restructuring options generating potential resources depending upon market conditions and other matters, and (iv) applying new, federal FTA grant flexibility rules to use in the current federal fiscal year for operating relief in the emergency. The MTA Board on March 25, 2020 authorized MTA to secure an additional $2 billion in commercial bank lines of credit market conditions permitting. Also, see the additional significant financial assistance and flexibility provided in the State's FY 2020-21 Enacted Budget. There can be no assurance that MTA will be successful in securing additional lines of credit.

  As noted above, exercising these options would come at a cost, including increased longer-term borrowing and potential adverse impacts on the timing of MTA initiatives to improve its systems. The loss of farebox and toll revenues, potential declines in State and local, as well as reprogramming of available federal and possibly State generated funding support for capital purposes, to urgent financial needs, will result in delays and shortfalls in implementing Capital Plan projects. The full impact of the COVID-19 pandemic on Capital Plan implementation cannot be determined at this time.

Finally, as is provided in the February Plan, MTA relies on State and local subsidies and dedicated taxes. The financial stress which MTA is experiencing as a result of the COVID-19 pandemic is being similarly felt at all levels of the government and in the social and financial lives of MTA patrons and State and local residents. This can be expected to have a substantial adverse impact on State and local revenues, on dedicated tax collections, and thus on the capacity of the State and local governments to maintain or raise the level of financial support to MTA during this crisis.

- *NY Essential Service Plan* – On March 24, 2020, MTA management announced the implementation of the "NY Essential Service Plan (Service Plan)." The Service Plan is designed to ensure healthcare workers, first responders and essential personnel are able to get to and from work by public transportation. The Authority have implemented temporary reduced service schedules.

  The Service Plan includes the following specific measures:

  - *Subways and buses:* On the subways, beginning March 25, 2020, service reductions were implemented. The service changes preserve the Authority's a.m. and p.m. peak service to get first responders and essential personnel to their destinations. Some lines will not run Monday through Friday, including the B, W and Z lines, which will be covered by other local service. Some express services and branches on some lines will operate only local service. The Authority will continue to undertake a line-by-line, hour-by-hour analysis of ridership, retaining flexibility to increase service as necessary.
  - *Paratransit:* The paratransit program has eliminated shared rides, in accordance with the recommended public health guidance, and extended eligibility for existing Access-A-Ride customers. The paratransit system continues to have capacity to serve demand.

  All of the foregoing service changes are described on MTA website, the MYmta app and on countdown clocks in stations and on platforms.

  The schedule changes follow the Governor's "New York State on PAUSE" order, which directed New Yorkers use of public transportation for only essential travel and attempts to limit potential exposure by spacing out riders by six feet. The Authority continues the aggressive disinfecting procedures at each of its stations twice daily, and continue daily sanitization of its fleet of rolling stock with the full fleet of train cars and buses disinfected every 72 hours or less. The Access-A-Ride dedicated fleet is disinfected daily. Surfaces frequently used by customers in stations, such as turnstiles, MetroCard, and handrails, will be disinfected twice daily with EPA-approved and National Centers for Disease Control-endorsed disinfectants.

  The Authority is employing its pandemic plan, which is updated regularly, and serves as a blueprint guiding the Authority's response in accordance with Federal, State and local authorities. Through the end of March, the Authority has distributed the following resources to operating employees: masks, gloves to those whose jobs require it, bottles of hand sanitizer, gallons of cleaning supplies and boxes of sanitizing wipes. Additionally, the Authority continues to replenish and maintain a stockpile of these essential items so that the Authority can continue to distribute them as needed. In addition, to these actions, the Authority has taken a number of aggressive steps to ensure worker safety, including reducing the number of crews that need to report to work, implementing rear-door boarding to ensure social distance for bus operators, eliminating cash transactions and, as detailed above, disinfecting workplaces, trains, buses and all rolling stock, among other actions. The Authority is also working closely with the National Centers for Disease Control, the State Department of Health, and other government agencies during this time.

- *Capital plan procurement and construction contract delays* – MTA Construction and Development Company (MTACDC) is currently evaluating the impacts of the COVID-19 pandemic on MTA's Capital Plans. MTACDC expects to reassess a path forward for implementation of the Capital Plans in the face of the COVID-19 pandemic in 60 days. In the meantime, MTACDC will cease the award of new Capital Plan construction or consulting contracts and, with few exceptions, MTACDC is, effective April 1, 2020, suspending action on open solicitations for all such contracts. With limited exceptions, the dates for submission of bids, requests for qualification and requests for proposals for open solicitations for MTACDC, or for any other capital budget-funded MTA projects, will be adjourned until further notice. Similarly, currently scheduled qualification hearings and pre-bid conferences have been cancelled and will be rescheduled as appropriate. The full impact of the COVID-19 pandemic on Capital Plan implementation cannot be determined at this time.

- *New York State fiscal year 2020-21 budget provisions of Importance to MTA* – Several provisions in the State's fiscal year 2020-21 budget (as passed by both the State Assembly and State Senate and signed by the Governor on April 3, 2020 the "State FY 2020-21 Enacted Budget"), are intended to provide significant financial assistance and flexibility to aid MTA in addressing the adverse impacts caused by the COVID-19 pandemic. Among the provisions in the State FY 2020-21 Enacted Budget addressing MTA's needs are the following:

  (1) amends existing law to allow MTA to use monies in the Central Business District Tolling Lockbox Fund (the CBD Tolling Lockbox Fund) for two years (2020 and 2021) to offset decreases in revenue (i.e. lost taxes, fees, charges, fares and tolls) or increases in operating costs due in whole or in part to the State emergency disaster caused by the COVID-19 pandemic. The CBD Tolling Lockbox Fund currently includes Internet sales tax revenue and mansion tax revenue that will be used for operations. In the future, CBD tolling revenue will be added when that program is up and running, although CBD tolling revenue may be restricted under Federal law to capital expenses. All revenues deposited in such fund were under prior law only available for capital costs of MTA's 2020-24 Capital Plan and successor capital plans, and costs of the Central Business District tolling program. This provision also provides that if MTA receives funds/reimbursements from Federal government or insurance due to the COVID-19 pandemic, MTA must repay the CBD Tolling Lockbox Fund, but only after it has first fully repaid any COVID-19 pandemic related public or private borrowings, draws on lines of credit; issuances of revenue anticipation notes, internal loans; or use of corpus of MTA's OPEB trust;

  (2) amends existing law to increase MTA's bond cap from \$55.5 billion to \$90.1 billion through 2024;

(3) creates new authorization for MTA to issue up to $10.0 billion of bonds for three years (2020-2022) to offset decreases in revenue (i.e. lost taxes, fees, charges, fares and tolls) or increases in operating costs of the MTA and its Related Entities due in whole or in part to the State disaster emergency caused by the COVID-19 pandemic;

(4) commits the State and the City to each pay $3.0 billion to fund capital costs of the MTA's 2020-2024 Capital Plan. Additionally,
   a. State's Director of the Budget will determine schedule for the City's payments of its $3 billion share to MTA,
   b. if the City does not pay in full any of its scheduled payments, the Director of the Budget shall require the State Comptroller to intercept aid to localities appropriations to the City, or any other revenue source of the City, including sales and use tax, in an amount equal to the City's unpaid balance and deposit it into a newly established State-held fund, the MTA Capital Assistance Fund, and
   c. the State Comptroller must pay monies deposited in the MTA Capital Assistance Fund to MTA without appropriation, and

(5) requires the City, beginning on July 1, 2020, to pay one-half of the Authority's net paratransit operating expenses for four years: 2020, 2021, 2022, and 2023, and provides a statutory mechanism to intercept funds otherwise available to the City to insure payment of the City's share, if necessary. The City's contribution for each of those years is capped in the law as follows: 2020: $215 million; 2021: $277 million; 2022: $290 million; and 2023: $310 million.

- *Dedication of 341-7 Madison Avenue Redevelopment Proceeds to MTA Capital Program* - MTA and the City of New York announced on April 2, 2020, an agreement on a site-specific value capture strategy to speed development of 341-7 Madison Avenue, the site of the MTA's former headquarters in midtown Manhattan. Real estate taxes and other revenue generated from the future ground lease for the redevelopment of the property will be dedicated to the MTA capital program. The redevelopment plan is projected to generate more than $1 billion over the life of the ground lease to fund approved MTA New York City Transit projects. The agreement is part of the City of New York's commitment to provide $600 million from alternative non-tax-levy revenue sources as part of its $2.66 billion contribution to MTA's 2015-2019 Capital Plan.

- *COVID-19 family benefits agreement* – On April 14, 2020 the MTA, Transport Workers Union Local 100 (TWU) reached an agreement on COVID-19 family benefits for transportation workers tragically lost in the pandemic. The benefits include a payment of $500,000 from the Authority to the surviving family of any worker who lost their life as a result of COVID-19, in addition to providing health insurance to the spouse and dependents to the age of 26 of the surviving family for three years. The Authority continues to have ongoing discussions with all labor partners to extend the COVID-19 family benefits agreement to all members of its represented workforce. The agreement will also be extended to all non-represented employees. The agreement was approved by the Board on April 22, 2020.

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REQUIRED SUPPLEMENTARY INFORMATION

NEW YORK CITY TRANSIT AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF CHANGES IN THE AUTHORITY'S NET PENSION LIABILITY AND RELATED RATIOS FOR THE MABSTOA PENSION PLAN AT DECEMBER 31:
(In millions)

	2018	2017	2016	2015	2014
Total pension liability:					
Service cost	$ 87	$ 84	$ 82	$ 77	$ 72
Interest	256	246	237	233	224
Differences between expected and actual experience	6	12	14	(69)	(2)
Change of assumptions	-	6	-	-	-
Benefit payments and withdrawals	(214)	(209)	(188)	(180)	(175)
Net change in total pension liability	135	139	145	61	119
Total pension liability — beginning	3,676	3,537	3,392	3,331	3,212
Total pension liability — ending(a)	3,811	3,676	3,537	3,392	3,331
Fiduciary net position:					
Employer contributions	205	202	221	215	226
Member contributions	22	20	19	16	15
Net investment income	(88)	350	212	(24)	105
Benefit payments and withdrawals	(214)	(209)	(188)	(180)	(175)
Administrative expenses	-	-	-	-	-
Net change in plan fiduciary net position	(75)	363	264	27	171
Plan fiduciary net position — beginning	2,919	2,556	2,292	2,265	2,094
Plan fiduciary net position — ending(b)	2,844	2,919	2,556	2,292	2,265
Employer's net pension liability — ending(a)-(b)	$ 967	$ 757	$ 981	$1,100	$1,066
Plan fiduciary net position as a percentage of the total pension liability	74.6 %	79.4 %	72.3 %	67.6 %	68.0 %
Covered-employee payroll	776	750	717	687	653
Employer's net pension liability as a percentage of covered-employee payroll	124.6 %	100.9 %	136.8 %	160.1 %	163.2 %

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available. In accordance with GASB No. 68, information was not readily available for periods prior to 2014.

NEW YORK CITY TRANSIT AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF THE AUTHORITY'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY IN THE NYCERS PENSION PLAN AT JUNE 30:
(In millions)

	2019	2018	2017	2016	2015
The Authority's proportion of the net pension liability	23.271 %	22.527 %	22.788 %	22.227 %	22.380 %
The Authority's proportionate share of the net pension liability	$ 4,310	$ 3,973	$ 4,732	$ 5,400	$ 4,530
The Authority's actual covered-employee payroll	$ 3,256	$ 3,090	$ 3,024	$ 2,930	$ 2,862
The Authority's proportionate share of the net pension liability as a percentage of the Authority's covered-employee payroll	132.371 %	128.576 %	156.481 %	184.300 %	158.277 %
Plan fiduciary net position as a percentage of the total pension liability	78.836 %	78.826 %	74.805 %	69.568 %	73.125 %

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available. In accordance with GASB No. 68, information was not readily available for periods prior to 2015.

NEW YORK CITY TRANSIT AUTHORITY

(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF THE AUTHORITY'S CONTRIBUTIONS TO ALL PENSION PLANS
FOR THE YEARS ENDED DECEMBER 31:
(In millions)

MaBSTOA:	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Actuarially Determined Contribution	$ 209.3	$ 202.5	$ 202.9	$ 220.7	$ 214.9	$ 226.4	$ 234.5	$ 228.9	$ 186.5	$ 200.6
Actual Employer Contribution	206.4	205.4	202.7	220.7	214.9	226.4	234.5	228.9	186.5	200.6
Contribution Deficiency (Excess)	$ 2.9	$ (2.9)	$ 0.2	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Covered Payroll	786.6	776.2	749.7	716.5	686.7	653.3	582.1	576.0	579.7	591.1
Contributions as a % of Covered Payroll	26.2 %	26.5 %	27.0 %	30.8 %	31.3 %	34.7 %	40.3 %	39.7 %	32.2 %	33.9 %

NYCERS:	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Actuarially Determined Contribution	$ 904.1	$ 768.4	$ 759.6	$ 753.2	$ 694.4	$ 708.2	$ 702.9	$ 695.8	$ 630.1	$ 549.1
Actual Employer Contribution	904.1	768.4	759.6	753.2	694.4	708.2	702.9	695.8	630.1	549.1
Contribution Deficiency (Excess)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Covered Payroll	3,784.2	3,841.0	3,624.4	3,386.1	3,344.3	3,449.1	2,811.1	2,797.7	2,771.9	2,751.5
Contributions as a % of Covered Payroll	23.9 %	20.0 %	21.0 %	22.2 %	20.8 %	20.5 %	25.0 %	24.9 %	22.7 %	20.0 %

NOTES TO SCHEDULE OF THE AUTHORITY'S CONTRIBUTIONS TO ALL PENSION PLANS:

The following actuarial methods and assumptions were used in the January 1, 2018 and 2017 funding valuation for the MaBSTOA pension plan as follows:

	MaBSTOA	
Valuation Date	January 1, 2018	January 1, 2017
Measurement Date	December 31, 2018	December 31, 2017
Actuarial cost method	Frozen Initial Liability (FIL)(1)	Frozen Initial Liability (FIL)(1)
Amortization method	For FIL bases, period specified in current valuation report. 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 report. 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 assumptions:		
Discount Rate	7.0%	7.0%
Investment rate of return	7.0%, net of investment expenses	7.0%, 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.
Inflation	2.5% per annum	2.5% per annum
Salary increases	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.	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.
Overtime	Except for managerial employees, 8.5% of base salary for operating employees and 2.0% of base salary for nonoperating employees, with different assumptions used in the year before retirement. For Tier 6 members, all overtime was assumed to be less than the overtime cap.	Except for managerial employees, 8.5% of base salary for operating employees and 2.0% of base salary for nonoperating employees, with different assumptions used in the year before retirement. For Tier 6 members, all overtime was assumed to be less than the overtime cap.
Cost-of-Living Adjustments	1.375% per annum	1.375% per annum
Rate of normal retirement	Tables based on recent experience. Rates vary by age, years of service at retirement and Tier/Plan. All members are assumed to retire by age 80.	Tables based on recent experience. Rates vary by age, years of service at retirement and Tier/Plan. All members are assumed to retire by age 80.

(1) Under this actuarial method, the initial liability has been established by the Entry Age Actuarial Cost Method for determining changes in the Unfunded Actuarial Accrued Liability (UAAL) due to plan provision and assumption changes.

(Continued)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
NOTES TO SCHEDULE OF THE AUTHORITY'S CONTRIBUTIONS TO ALL PENSION PLANS:

Significant methods and assumptions used in calculating the actuarially determined contributions of an employer's proportionate share in a Cost Sharing, Multiple-Employer pension plan, the NYCERS Plan, should be 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 changes of benefit terms in the June 30, 2018 funding valuation.

Changes of Assumptions

There were no changes of benefit assumptions in the June 30, 2018 funding valuation.

(Concluded)

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NEW YORK CITY TRANSIT AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF THE AUTHORITY'S PROPORTIONATE SHARE OF THE NET OPEB LIABILITY IN THE MTA OPEB PLAN AT:
(In millions)

Plan Measurement Date (December 31):	2018	2017
The Authority's proportion of the net OPEB liability	67.83%	67.88%
The Authority's proportionate share of the net OPEB liability	$ 13,281	$ 13,784
The Authority's covered payroll	$ 4,617	$ 3,619
The Authority's proportionate share of the net OPEB liability as a percentage of its covered payroll	287.65%	380.88%
Plan fiduciary net position as a percentage of the total OPEB liability	1.76%	1.79%

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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NEW YORK CITY TRANSIT AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF THE AUTHORITY'S CONTRIBUTIONS TO THE OPEB PLAN AND NOTES TO SCHEDULE OF THE AUTHORITY'S CONTRIBUTION TO THE OPEB PLAN FOR THE YEARS ENDED DECEMBER 31:
(In millions)

	2019	2018	2017
Actuarially Determined Contribution	n/a	n/a	n/a
Actual Employer Contribution [1]	$ 505.6	$ 468.8	$ 441.9
Contribution Deficiency (Excess)	n/a	n/a	n/a
Covered Payroll	4,570.8	4,617.2	3,618.6
Actual Contribution as a Percentage of Covered Payroll	11.06%	10.15%	12.21%

(1) Actual employer contribution includes the implicit rate of subsidy adjustment of $21.3, $19.9 and $19.6 for the years ended December 31, 2019, 2018 and 2017, respectively.

Notes to Schedule of the Authority's Contribution to the OPEB Plan:

Methods and assumptions used to determine contribution rates:

Valuation date	July 1, 2017	July 1, 2017
Measurement date	December 31, 2018	December 31, 2017
Discount rate	4.10%	3.44%
Inflation	2.50%	2.50%
Actuarial cost method	Entry Age Normal	Entry Age Normal
Investment rate of return	6.50%	6.50%

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.

MTA Long Island Rail Road

(Component Unit of the Metropolitan Transportation Authority)

Financial Statements as of and for the
Years Ended December 31, 2019 and 2018,
Required Supplementary Information, and Independent
Auditors' Report

MTA LONG ISLAND RAIL ROAD
(Component Unit of the Metropolitan Transportation Authority)

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INDEPENDENT AUDITORS' REPORT

To the Members of the Board of
Metropolitan Transportation Authority

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities and the financial statements of the fiduciary activities (collectively, the "financial statements") of the MTA Long Island Rail Road, a component unit of the Metropolitan Transportation Authority ("MTA"), as of and for the years ended December 31, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the MTA Long Island Rail Road's basic financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and fiduciary activities of the MTA Long Island Rail Road as of December 31, 2019 and 2018, and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matters

As discussed in Note 1 to the financial statements, the MTA Long Island Rail Road is a component unit of the MTA. The MTA is a component unit of the State of New York. The MTA Long Island Rail Road requires significant subsidies from and has material transactions with MTA. Our opinions are not modified with respect to this matter.

As described in Note 2 to the financial statements, as of January 1, 2018, the MTA Long Island Rail Road adopted Governmental Accounting Standards Board ("GASB") Statement No. 84, *Fiduciary Activities.* Our opinions are not modified with respect to this matter.

Other Matters

Required Supplementary Information

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

May XX, 2020

OVERVIEW OF THE FINANCIAL STATEMENTS

Introduction

The following is a narrative overview and analysis of the financial activities of MTA Long Island Rail Road, a component unit of the Metropolitan Transportation Authority ("MTA"), for the years ended December 31, 2019 and 2018. This discussion and analysis is intended to serve as an introduction to MTA Long Island Rail Road Road's financial statements, which have the following components: (1) Management's Discussion and Analysis ("MD&A"), (2) Financial Statements, (3) Fiduciary Fund Financial Statements, (4) Notes to Financial Statements, and (5) Required Supplemental Information.

Management's Discussion and Analysis

The MD&A provides an assessment of how MTA Long Island Rail Road's position has improved or deteriorated and identifies the factors that, in management's view, significantly affected MTA Long Island Rail Road's overall financial position. It may contain opinions, assumptions or conclusions by MTA Long Island Rail Road's management that should not be considered a replacement for, and must be read in conjunction with the financial statements.

The Financial Statements

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

The Statements of Revenues, Expenses and Changes in Net Position show how MTA Long Island Rail Road's net position changed during each year and accounts for all the current and prior year's revenues and expenses, measure the success of MTA Long Island Rail Road's operations over the twelve months and can be used to determine how MTA Long Island Rail Road has funded its costs.

The Statements of Cash Flows provide information about MTA Long Island Rail Road's cash receipts, cash payments, and net changes in cash resulting from operations, noncapital financing, capital and related financing.

The Fiduciary Fund Financial Statements

The Fiduciary fund is used to account for resources held in a trustee capacity for the benefit of parties outside of a government entity. The Fiduciary fund is not reported in the MTA Long Island Rail Road's financial statements because the resources of that fund are not available to support MTA Long Island Rail Road's own programs. The fiduciary fund is reported as a Pension Fund.

The Statement of Fiduciary Net Position presents financial information about the assets, liabilities, and the fiduciary net position held in trust of the fiduciary fund of the MTA Long Island Rail Road. The Statement of Changes in Fiduciary Net Position presents fiduciary activities of the fiduciary fund as additions and deductions to the fiduciary net position.

The Notes to the Financial Statements

The Notes provide information that is essential to understanding the financial statements, such as MTA Long Island Rail Road's accounting methods and policies. The notes also have the details of cash, capital assets, retirement benefits, lease transactions, future commitments and contingencies and any other events or developing situations that could materially affect MTA Long Island Rail Road's financial position.

Required Supplemental Information

The Required Supplemental Information provides information concerning the MTA Long Island Rail Road's progress in funding its obligation to provide pension and other postemployment benefits to its employees. It also includes the Schedule of Changes in the MTA Long Island Rail Road's Net Pension Liability and Related Ratios for The Long Island Rail Road Company Plan for Additional Pensions, the Schedule of the MTA Long Island Rail Road's Proportionate Share of the Net Pension Liability in the MTA Defined Benefit Pension Plan, the Schedule of MTA Long Island Rail Road's Contributions to All Pension Plans, and the Schedule of Funding Progress—Postemployment Benefit Plan.

FINANCIAL REPORTING ENTITY

In 1966, the MTA acquired the capital assets of MTA Long Island Rail Road from the former Pennsylvania Railroad Company. In February 1980, MTA Long Island Rail Road became a component unit of the MTA, pursuant to New York State Public Authorities Law, 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. MTA Long Island Rail Road is a part of the related financial reporting group of the MTA. The MTA is a component unit of the State of New York.

CONDENSED FINANCIAL INFORMATION

The following sections will discuss the significant changes in MTA Long Island Rail Road's financial position for the years ended December 31, 2019 and 2018. Additionally, an examination of major economic factors that have contributed to these changes is provided. It should be noted that for purposes of the MD&A, summaries of the financial statements and the various exhibits presented are in conformity with MTA Long Island Rail Road's financial statements, which are prepared in accordance with accounting principles generally accepted in the United States of America. All dollar amounts are in thousands.

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

	As of December 31,			Increase / (Decrease)	
	2019	2018	2017	2019–2018	2018–2017
Capital assets—net	$ 7,881,528	$ 6,825,946	$ 6,102,261	$ 1,055,582	$ 723,685
Other assets	394,608	396,978	394,845	(2,370)	2,133
Deferred outflows of Resources	558,738	434,776	339,676	123,962	95,100
Total assets and Deferred Outflows of Resources	$ 8,834,874	$ 7,657,700	$ 6,836,782	$ 1,177,174	$ 820,918

Significant Changes in Assets and Deferred Outflows of Resources—

In 2019, capital assets increased by $1.1 billion or 15.5% compared to December 2018. The major components of the increase are related to capital assets placed into beneficial service, changes to construction work-in-progress and changes in accumulated depreciation.

Significant additions to capital assets resulted from the following:

- Improvements to MTA Long Island Rail Road's infrastructure road-assets continued under the 2019 Track Program that provided replacement of various track elements and branches at a cost of $61.9 million. LIRR had additional costs for the Main Line Double Track of $30.8 million. The Right of Way Fencing project had costs of $4.1M. High security fencing was installed along the LIRR Right of Way. The new high security fencing will mitigate identified hazards on the ROW for the protection of LIRR customers, employees, and the communities. Signal power lines were replaced and/or upgraded across various locations at a cost of $2.6 million. This included replacing or upgrading aged, deteriorated, and inadequate signal power lines systemwide that are beyond their useful life to address State of Good Repair needs. Selected power poles were replaced and upgraded based on age and condition systemwide with fiberglass power poles at a cost of $2.3 million to ensure the power pole system is maintained in a State of Good Repair. Replacements of the DC relay controls at select substations were done at a cost of $1.2 million to improve LIRR power system reliability. These improvements will provide the LIRR with the ability to better analyze and control the amount of energy that is transferred between the power feeds and the tracks.

- The Enhanced Station Initiatives project enhanced the appearance, function, safety, and customer experience at 14 LIRR stations: Deer Park, Brentwood, Merrick, Stony Brook, Syosset, East Hampton, Bellmore, Farmingdale Great Neck, Bayside, Northport, Valley Stream, Ronkonkoma, and Baldwin at a total cost of $95.0 million. Bridge Replacements of two LIRR bridges over North Main Street and Accabonac Road in East Hampton on the Montauk Branch were completed at a cost of $11.9 million. Upgrades to the Hillside Maintenance facility were completed at a cost of $7.3 million. Improvements to the Port Washington Substation continued from prior year at a cost of $5.0 million. Additional costs of $4.8 million for the Main Line Double Track project were incurred. Rehabilitation of Springfield and Union Turnpike bridges were completed at a cost of $5.4 million. The Enhanced Station Initiative at Port Jefferson Station on the Port Jefferson Branch in Suffolk

County totaled $6.6 million. Work included construction of new stamped concrete sidewalks, parking lot rehabilitation, repaving and striping, new curbs and planters, and station building exterior brick renewal. The Mentor Station Component Replacement project included rehabilitation to two stations: Laurelton Station and Locust Manor Station at a cost of $3.9 million. Station Enhancements to the Stewart Manor Station to improve the appearance of the station were completed at a cost of $2.0 million. Improvements included installation of new art glass within the platform shelter sheds, landscaping, new stamped concrete sidewalks, bike racks, and new curbs. Rehabilitation of the two-track Flushing Main Street Bridge is completed costing $2.6 million. Bridge rehabilitation included new bearings and bridge deck waterproofing as well as repairs to the concrete underdeck, girders, parapets. Lastly, various structural improvements resulted in an additional $21.0 million increase to buildings and structures.

- Twenty-Six M9 rail cars entered passenger service in 2019 for additional costs of $70.2 million. The new cars incorporate and improve upon the most successful and popular features of the LIRR's familiar M7 electric cars.

- The LIRR centralized control of all LIRR train movement to a full centralized train control system within the JCC building at a cost of $29.0 million. The project included the initial architectural fit-out of the CTC facility, with furnishings and installation of: flooring, ceiling, electrical, security, communication, and fire suppression systems. The lost and found office at Penn Station was renovated at an additional cost of $1.1 million.

  Non-revenue vehicle purchases totaled $17.0 million in 2019. A Wheel Lathe Truer was purchased for $14.8 million. There were additional costs of $1.2 million for the purchase of a bucket truck under emergency equipment. Eight-three advertising displays at LIRR train stations were installed totaling $2.8 million. The purchases of various types of machinery and equipment including security cameras resulted in an additional $2.6 million increase to machinery and equipment.

Significant changes to construction work-in-progress continued in the following areas:

- Signal and communication construction work-in-progress increased by $76.2 million due to the emphasis on Positive Train Control on all main-line tracks to maintain compliance with Rail Safety Improvement Act of 2018, the continuing build up and upgrade of the LIRR fiber optic network and the signal replacement program. These increased were offset by decreases in the Centralized Train Control and Centralized Traffic Control projects.

- Shops & Yards work in progress increased by $76.8 million primarily due to the continuing construction of a new Mid-Suffolk Yard and the new Morris Park Locomotive Shop containing the Diesel Shop, Bone Yard, Stores Building and Employee Facilities. These increases are primarily offset by a decrease in Rolling Stock Support Equipment.

- Passenger cars work in progress incurred an additional cost of $39.7 million due to continued procurement of new M-9 cars for the East Side Access service, as well as the eventual replacement of the aging M 3 fleet.

- Passenger Station work in progress increased by $26.6 million mainly due to additional costs for the Penn Station new entrance at 33th Street and 7th Avenue, Nostrand Avenue Station Rehabilitation, new elevators at the Murray Hill Station, new elevators and escalators at Penn Station and the complete renovation of the station master office at Penn

Station. These increases were primarily offset by a decrease in Enhanced Initiative projects for upgrades to various passenger stations.

- Line Structures work in progress increased $707.9 million primarily due to the LIRR Expansion Project of the Main Line Third Track between Floral Park and Hicksville, the Jamaica Capacity Improvements project, the annual track program and Other Territory Improvements.

- An increase of $71.1 million resulted from owner controlled insurance program, program administration, project material, security projects, and NYSDOT projects.

These increases are partially offset by increases in accumulated depreciation and amortization of $349.1 million.

Other assets decreased in 2019 by $2.4 million or .6% primarily due to a decrease in the investment account funds received from MTA HQ for the repayment of the prior year loan. The decrease was offset by increases in outstanding prebills and invoices for capital and reimbursable expenditures, such as the five-year capital program, the third track program and east side access.

Deferred outflows of resources increased by $123.9 million or 28.5% due to the increase in deferred outflows for pensions per the actuarial report. See Note 7 of the audited financial statements for further information. The increase was offset by a decrease in deferred outflows for postemployment benefits other than pensions. See Note 8 of the audited financial statements for further information.

In 2018, capital assets increased by $723.7 million or 11.9% compared to December 2017. The major components of the increase are related to capital assets placed into beneficial service, changes to construction work-in-progress and changes in accumulated depreciation.

Significant additions to capital assets resulted from the following:

Improvements to MTA Long Island Rail Road's infrastructure road-assets continued under the 2018 Track Program that provided replacement of various track elements and branches at a cost of $45.6 million. Additional work under the prior year track program resulted in a cost of $32 million. LIRR completed the Main Line Double Track at a cost of $357.5 million. Trains can now start or extend to Ronkonkoma instead of Farmingdale. The additional track has also provided greater flexibility during perturbed situations which has resulted in improved on time performance along this branch. Continuing with compliance with positive train control, additional upgrades were made to the signal system from Speonk to Montauk at a cost of $8.3 million. Hicksville station improvements included $7.7 million in replacement costs for wood ties and ballast. Line poles and applicable hardware at various locations along the Right of Way were replaced at a cost of $4.8 million. These poles carry cable lines which provide services to LIRR communication system including fiber optic cable, signal cabling and supervisory control lines. Concrete ties were replaced along the Port Jefferson branch at a cost of $4.8 million. In the Long Island City Yard, reconstruction of tracks 9 through 12 were completed. This included restoration of third rail systems, switch replacements, flood protection walls and gates and construction of car cleaning platforms totaling $3.2 million. The circuit breaker House F tower totaled $2.9 million in costs. The Hillside interlocking training facility upgrade totaled $1.4 million. Lastly, various improvements to road related assets totaled $2.5 million.

- Under the Main Line Double Track project, new platforms and station at Pine Lawn and a new south platform at Wyandanch were completed costing $98.9 million. Hicksville

Station Improvements were completed at a cost of $65 million. These improvements included two new hydraulic elevators, elevated platforms, replacement of two existing escalators and replacement of concrete stairways with new aluminum stairs and handrails. In addition, new platform canopies and platform waiting rooms were completed along with new electrical, lighting, heating and communication systems. Two new elevators to provide ADA accessibility from ground level to platforms at the Flushing Main Street station were completed costing $22.9 million. The Wantagh Station Platform Replacement project was completed at a cost of $28.1 million. This project included rehabilitation of the existing elevated 12 car center island platform, a new elevator, replacement of an escalator, new lighting and communications systems. Rehabilitation of the Port Washington substation building and association equipment was completed at a cost of $19.8 million. The Long Beach substation was also replaced at a cost of $4 million. The Wyandanch Station Building and Steward Manor Platform were replaced as part of an enhanced station initiative costing $7.4 million and $5.1 million respectively. In addition, another enhanced station initiative project for these six stations: Great Neck, Bayside, Northport, Valley Stream, Ronkonkoma and Baldwin was completed at a cost of $10.2 million. Various bridge rehabilitation projects were completed at a cost of $37.9 million which included costs for Buckram Bridge of $13.4 million. Security projects at various locations were completed costing $4.4 million. Lastly, various structural improvements, including upgrading parking lots resulted in an additional $8.9 million increase to buildings and structures

- Continued additions and improvements to the West End Concourse in Penn Station included new entrances, elevators and LED lighting totaling $30 million. Continued improvements to the East River Tunnel Traction Power Substation resulted in an additional $1.0 million increase to leasehold improvements.

- The vehicles were purchased totaling $4.7 million in 2018. Purchases of trailers and snow equipment totaled $1.4 million. Equipment including CCTV cameras was purchased for the Flushing Main Street Station totaling $3.1 million. Equipment was also purchased for the Hicksville Station Improvements including CCTV cameras totaling $4.2 million. Emergency management equipment including generators, payloaders, trucks and a trailer totaling $1.4 million were also purchased in 2018. Thirty-five advertising displays for seven LIRR train stations were installed totaling $2.7 million. The purchases of various types of machinery and equipment resulted in an additional $2.9 million increase to machinery and equipment.

Significant changes to construction work-in-progress continued in the following areas:

- Signal and communication construction work-in-progress increased by $124.5 million due to the emphasis on Positive Train Control on all main-line tracks to imply with Rail Safety Improvement Act of 2018, the signal replacement program, Centralized Train Control and Centralized Traffic Control.

- Shops & Yards work in progress increased by $79.9 million primarily due to the design and build construction of the new Morris Park Locomotive Shop containing the Diesel Shop, Bone Yard, Stores Building and Employee Facilities and preliminary design and construction of a new Mid-Suffolk Yard.

- Passenger cars work in progress incurred an additional cost of $32.2 million due to continued procurement of new M-9 cars for the East Side Access service, as well as the eventual replacement of the aging M-3 fleet.

- Passenger Station work in progress increased by $40.4 million mainly due to additional costs for the Enhanced Station Initiative projects for upgrades to various passenger stations as well as the Nostrand Avenue Station Rehabilitation.

- Line Structures work –in –progress decreased $1.3 million primarily due to capitalization of the Double Track and Hicksville Station Improvements and additional costs for the 2017 Track Program projects in 2018.

- A decrease of $22.8 million resulted from program administration, project material, security projects, and NYSDOT projects.

These increases are partially offset by increases in accumulated depreciation and amortization of $317.1 million.

Other assets increased in 2018 by $2.1 million or 0.5% primarily due to an increase in the investment account funds received from MTA HQ for payment of checks issued and an increase in material and supplies. The increase was offset by decreases in outstanding pre-bills, invoices for capital and reimbursable expenditures, a large customer advance was utilized to offset payments and LIRR reaching a settlement with another customer for outstanding invoices.

Deferred outflows of resources increased by $95.1 million or 28.0% due to the first-year implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The increase was offset by a decrease in deferred outflows for pensions. See Note 2 of the audited financial statements for further information.

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

	As of December 31,			Increase / (Decrease)	
	2019	2018	2017	2019–2018	2018–2017
Current liabilities	$ 383,276	$ 319,379	$ 287,383	$ 63,897	$ 31,996
Noncurrent liabilities	3,770,896	3,705,007	2,281,333	65,889	1,423,674
Deferred inflows of Resources	264,088	88,490	21,959	175,598	(1,603)
Total liabilities and Deferred Inflows of Resources	$ 4,418,260	$ 4,112,876	$ 2,590,675	$ 305,384	$ 1,522,201

Significant Changes in Liabilities and Deferred Inflows of Resources—

In 2019, total liabilities and deferred inflows of resources increased by $305.2 million or 7.4% compared to 2018.

- Noncurrent liabilities increased by $65.9 million or 1.78% primarily due to the increase in Pension liability and was offset by a decrease in the post-employment benefits (“OPEB”) liability.

- Deferred inflows of resources increased by $175.6 million or 198.4% primarily due to the increase in deferred inflows for post-employment benefits (“OPEB”). The increase was offset by a decrease in deferred inflows for pensions per the actuarial report. See Note 7 and 8 of the audited financial statements for further information.

In 2018, total liabilities increased by $1.5 billion or 58.8% compared to 2017.

- Noncurrent liabilities increased by $1.4 billion primarily due to the recognition of the GASB Statement No. 75 Net Post-Employment Benefits Other than Pensions (“OPEB”) liability of $1.7 billion, and was offset by a decrease in Pension liability of $312.4 million.

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

	As of December 31,			Increase / (Decrease)	
	2019	2018	2017	2019–2018	2018–2017
Net investment in capital assets	$ 7,881,528	$ 6,825,946	$ 6,102,261	$ 1,055,582	$ 723,685
Unrestricted	(3,464,914)	(3,281,122)	(1,856,154)	(183,792)	(1,424,968)
Total net position	$ 4,416,614	$ 3,544,824	$ 4,246,107	$ 871,790	$ (701,283)

Net Position represents the residual interest in MTA Long Island Rail Road assets after liabilities are deducted and consist of the net investment in capital assets and unrestricted deficit. Net investment in capital assets include capital assets, net of accumulated depreciation and amortization.

December 31, 2019 versus 2018

Total net position increased by $871.8 million in 2019. The increase was comprised of operating and capital contributions from the MTA of $2.1 billion offset by an operating loss of $1.2 billion.

December 31, 2018 versus 2017

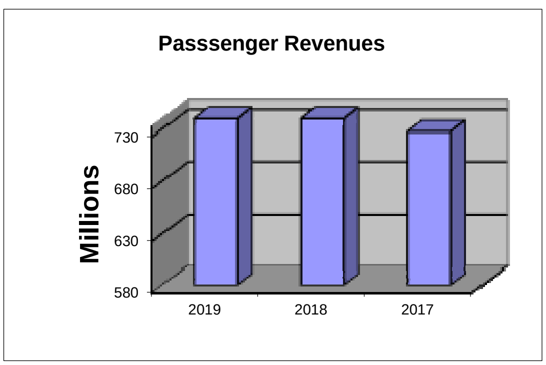
Total net position decreased by $701.3 million in 2018. The decrease was comprised of the reinstatement of the beginning net position by $1.4 billion due to the adoption of GASB Statement No. 75 and operating and capital contributions from the MTA of $1.9 billion offset by an operating loss of $1.2 billion.

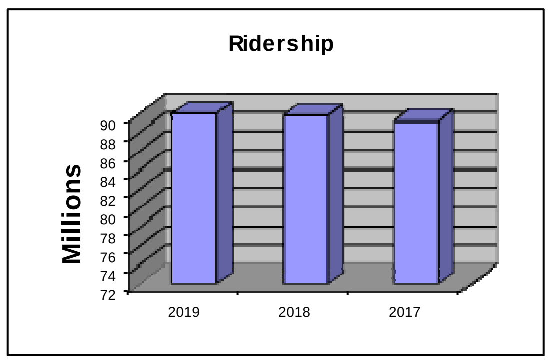
Condensed Statements of Revenues, Expenses and Changes in Net Position

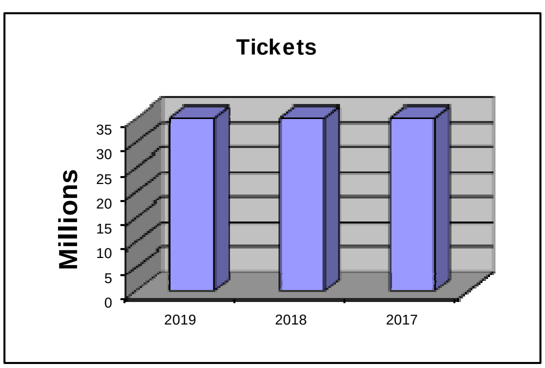
	December 31, 2019	December 31, 2018	December 31, 2017
Operating revenues	$ 809,243	$ 789,373	$ 780,571
Operating expenses	(1,998,838)	(1,982,876)	(1,912,893)
Operating loss	(1,189,595)	(1,193,503)	(1,132,322)
Nonoperating revenues:			
Operating subsidies from MTA	653,179	824,348	798,040
Capital contributions	1,408,206	1,080,692	706,132
FTA/FEMA reimbursement		311	-
Total nonoperating revenues	2,061,385	1,905,351	1,504,217
Change in net position	871,790	711,848	371,895
Net position—beginning of year	3,544,824	4,246,107	3,874,212
Restatement of beginning net position	-	(1,413,131)	-
Net position—end of year	$ 4,416,614	$ 3,544,824	$ 4,246,107

Revenues and Expenses by Major Source

Operating Revenues







The MTA Long Island Rail Road experienced its highest ridership since the post-war record of 91.8 million passengers in 1949. During 2019, the LIRR carried 91.1 million customers, which was a 1.5 percent increase from 89.8 million customers in 2018. LIRR remains the busiest commuter railroad in North America. Strong local economic conditions and continuous growth in non-commutation travel, including trips to entertainment and sports venues, have contributed to these ridership numbers.

The 2019 Non-Commutation market experienced growth of 4.1% when compared to 2018, outpacing the growth of the Commutation market, which decreased by 0.5%. Two major sporting events occurred in 2019, including the PGA golf tournament at Bethpage State Park and the Belmont Stakes at Belmont Park.

In 2018, The MTA Long Island Rail Road experienced its highest ridership since the post-war record of 91.8 million passengers in 1949. During 2018, the LIRR carried 89.8 million customers, which was a 0.7 percent increase from 89.2 million customers in 2017. When adjusted for the same number of calendar workdays, the 2018 ridership was 0.5 percent above the 2017 level. LIRR remains the busiest commuter railroad in North America. Strong local economic conditions and continuous growth in non-commutation travel, including trips to entertainment and sports venues, have contributed to these ridership numbers.

The 2018 Non-Commutation market experienced growth of 1.3% compared to 2017, outpacing the growth of the 2018 Commutation market, which increased 0.2%. In 2018, two major sporting events occurred that contributed to the increase, the US Open golf tournament in Southampton and the Triple Crown at Belmont Park.

Operating Expenses by Categories

				Increase / (Decrease)	
	2019	2018	2017	2019–2018	2018–2017
Salaries and wages	$ 711,738	$ 687,085	$ 633,269	$ 24,653	$ 53,816
Health and welfare	86,771	83,109	100,334	3,662	(17,225)
Pension	125,102	117,870	138,418	7,232	(20,548)
Other fringe benefits	105,946	97,037	81,731	8,909	15,306
Other post employment benefits (OPEB)	192,469	219,751	202,218	(27,282)	17,533
Electric power	80,528	88,946	84,769	(8,418)	4,177
Fuel	20,162	21,068	16,253	(906)	4,815
Insurance	20,326	19,880	20,524	446	(644)
Claims	9,995	13,505	18,301	(3,510)	(4,796)
Maintenance and other operating contracts	62,181	73,056	90,287	(10,875)	(17,231)
Environmental remediation	9,954	1,936	3,401	8,018	(1,465)
Professional service contracts	31,002	46,657	35,779	(15,655)	10,878
Materials and supplies	147,223	136,464	121,812	10,759	14,652
Depreciation and amortization	379,199	362,333	340,114	16,866	22,219
Other expenses	16,242	14,179	25,683	2,063	(11,504)
Total operating expenses	$ 1,998,838	$ 1,982,876	$ 1,912,893	$ 15,962	$ 69,983

Significant Changes to Operating Expenses in 2019—

Total 2019 operating expenses increased by $16.0 million or 0.81% over 2018 as follows:

- Salaries and wages increased by $24.7 million or 3.6% primarily due to lump sum payments to represented employees required by a union agreement, maintenance and weather-related overtime.

- Pension costs increased by $7.2 million or 6.1% primarily as a result of the latest actuarial valuation report.

- Other Post-Employment Benefits ("OPEB") decreased by $27.3 million or 12.4% primarily as a result of the latest actuarial valuation report.

- Electric power decreased by $8.4 million or 9.5% primarily due to lower rates and consumption.

- Maintenance and other operating contracts decreased by $10.9 million or 14.9% primarily due to lower costs for the security system, facility maintenance expenditures and non-revenue vehicle maintenance. The decrease was partially offset by higher expenses for emergency bussing support and elevator/ escalator maintenance.

- Professional Service Contracts decreased by $15.7 million or 33.6% primarily due to a decrease in write-offs of various projects that are no longer capital eligible.

- Environmental remediation increased by $8.0 million or 414.2 % primarily due to an increase in reserves for large projects undertaken in 2019.

- Depreciation and amortization increased by $16.9 million or 4.7% primarily due to additional depreciation for new assets capitalized in 2019.

Significant Changes to Operating Expenses in 2018—

Total 2018 operating expenses increased by $70.0 million or 3.7% over 2017 as follows:

- Salaries and wages increased by $53.8 million or 8.5% primarily due to yearly wage increases, maintenance and weather-related overtime.

- Pension costs decreased by $20.5 million or 14.8% primarily as a result of the latest actuarial valuation report.

- Other Post-Employment Benefits ("OPEB") increased by $17.5 million or 8.7% primarily as a result of the latest actuarial valuation report and the implementation of GASB Statement No. 75.

- Electric power increased by $4.2 million or 4.9% primarily due to higher rates and consumption.

- Maintenance and other operating contracts decreased by $17.2 million or 19.1% primarily due to lower maintenance expenditures associated with West End Concourse projects and maintenance for transformers, elevator / escalators and non-revenue vehicles. The increase was partially offset by higher expenses for emergency bussing and equipment and vehicle rentals.

- Professional Service Contracts increased by $10.9 million or 30.4% primarily due to expensing various projects that are not capital eligible, partially offset by lower marketing initiatives, MTA chargebacks and reduced spending on other professional service contracts.

- Depreciation and amortization increased by $22.2 million or 6.5% primarily due to additional depreciation for new assets capitalized in 2018.

- Other expenses decreased $11.5 million or 44.8% primarily due to the insurance payment reimbursing expenses for the New Hyde Park train derailment, lower bad debt reserve and the demolition of the Flushing building that had a remaining book value recorded in 2017.

Significant Changes to Nonoperating Revenues in 2019

In 2019, operating subsidies from the MTA decreased by $171.2 million or 21%. Operating subsidies are provided by MTA to MTA Long Island Rail Road as part of an MTA approved financial plan.

Decreases in operating subsidies primarily relate to:

- Passenger Revenues increased by $23.5 million primarily due to an increase in fares and ridership.

- Electric power and fuel decreased by $15.3 million due to lower rates and consumption.

- Other fringe payments decreased by $8.0 million due to a decrease in employee claims and lawsuits.

These increases in operating subsidies are partially offset by the following:

- Capital and Other Reimbursements decreases by $73.9 million primarily due to the timing of activity and reimbursement for capital and other reimbursements.

In 2019, nonoperating capital project subsidies from MTA increased by $327.5 million or 30.31%. Nonoperating capital projects subsidies are provided as part of the MTA approved five-year Capital Program which supports three key imperatives: completion of the restoration of the system which began in 1982; preservation of the investments is made through timely replacement of assets; and expansion of the MTA transportation network to better serve the economy of the New York City region. The amount of these subsidies is based on scheduled project activity occurring during the current five-year capital program lifecycle.

Significant Changes to Nonoperating Revenues in 2018

In 2018, operating subsidies from the MTA increased by $26.3 million or 3.3%. Operating subsidies are provided by MTA to MTA Long Island Rail Road as part of an MTA approved financial plan.

Increases in operating subsidies primarily relate to:

- Payroll, overtime and health benefits increased by $80.1 million due to general wage increases.

- Materials and Supplies increased by $29.6 million due to advance material purchases and higher production plan purchases.

- Maintenance and other operating contracts increased by $23.5 million primarily due to the State of Good Repair at Penn Station.

- Pension costs increased by $70.0 million due to a cash infusion by the MTA into the LIRR Additional Plan.

- Maintenance and other operating contracts decreased by $8.6 million primarily due to the State of Good Repair at Penn Station in 2017.

These increases in operating subsidies are partially offset by the following:

- Capital and Other Reimbursements increased by $59.9 million primarily due to the timing of activity and reimbursement for capital and other reimbursements.

- Farebox revenue increased by $17.2 million due to the fare increase in March 2017.

In 2018, nonoperating capital project subsidies from MTA increased by $374.6 million or 53.0%. Nonoperating capital projects subsidies are provided as part of the MTA approved five-year Capital Program which supports three key imperatives: completion of the restoration of the system which began in 1982; preservation of the investments is made through timely replacement of assets; and expansion of the MTA transportation network to better serve the economy of the New York City region. The amount of these subsidies is based on scheduled project activity occurring during the current five-year capital program lifecycle.

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 fourth quarter of 2019 increased relative to 2018, with ridership up by 5.4 million trips (0.2%). The increase was driven by MTA New York City Transit subway ridership, which rose by 17.7 million trips (1.1%). In addition, MTA Long Island Rail Road ridership rose by 1.3 million trips (1.5%) and MTA Metro-North Railroad rose by 0.1 million trips (0.1%). These increases through the fourth quarter were partially offset by ridership declines at MTA New York City Transit bus, which declined by 12.4 million trips (2.2%), MTA Bus, which declined by 1.0 million trips (0.8%), and MTA Staten Island Railway, which declined by 0.2 million trips (4.9%).The decline in bus ridership is consistent with a trend that began in 2009 and has been observed nationally, while the increase in subway ridership is the third quarterly increase after 12 consecutive year-on-year quarterly decreases that began in the second quarter of 2016. Vehicle traffic at MTA Bridges and Tunnels facilities through the fourth quarter increased by 7.1 million crossings (2.2%) compared with 2018 levels. The 2019 New York State Budget approved congestion pricing in Manhattan south of 60th Street, which is scheduled to go into effect in 2021—this will likely impact ridership and vehicle.

Seasonally adjusted non-agricultural employment in New York City for the fourth quarter was higher in 2019 than in 2018 by 79.5 thousand jobs (1.7%). On a quarter-to-quarter basis, New York City employment increased 32.7 thousand jobs, increasing for thirty-seventh consecutive quarter—the last decline occurred in the third quarter of 2010—and was higher than at any time since 1950, when non-agricultural employment levels for New York City were first recorded by the Bureau of Labor Statistics.

National economic growth, as measured by Real Gross Domestic Product ("RGDP"), expanded at an annualized rate of 2.1% in the fourth quarter of 2019, according to the most recent advance estimate released by the Bureau of Economic Analysis. The increase in RGDP reflected increases in consumer spending, government spending, exports, and housing investment, which were partially offset by decreases in inventory investment and business investment. Imports, a subtraction in the calculation of GDP, decreased. The increase in consumer spending reflected increases in goods (led by motor vehicles and parts) and services (led by health care). The increase in government spending reflected increases at the federal, as well as state and local, government levels. The decline in inventory investment reflected a decrease in retail trade inventories (led by motor vehicle dealers), while the decline in business investment reflected a decrease in equipment (led by industrial equipment) and structures (led by mining exploration, shafts, and wells). In the third quarter, the annualized RGDP rate was also 2.1 percent.

The New York City metropolitan area's price inflation, as measured by the Consumer Price Index for All Urban Consumers ("CPI-U"), was lower than the national average in the fourth quarter of 2019, with the metropolitan area index increasing 1.84% while the national index increased 2.03%, when compared with the fourth quarter of 2018.Decreases in both the regional and national price of energy products (2.52% for the region, and 0.56% nationally) contributed to the low inflation rates;

in the metropolitan area, the CPI-U exclusive of energy products increased by 2.15%, while nationally, inflation exclusive of energy products increased 2.25%. However, the spot price for New York Harbor conventional gasoline increased by 1.2%, from an average price of $1.70 per gallon to an average price of $1.72 per gallon between the fourth quarters of 2018 and 2019.

The Federal Open Market Committee ("FOMC") lowered its target for the Federal Funds rate during the fourth quarter of 2019, by a quarter point on October 31, 2019 to the target range of 1.50% to 1.75%. Job gains have been solid, on average, in recent months, and the unemployment rate has remained low. Although household spending has been rising at a strong pace, business fixed investment and exports remain weak. On a twelve-month basis, overall inflation and inflation for items other than food and energy are running below 2 percent, and market-based measures of inflation compensation remain low and survey-based measures of longer-term inflation expectations are little changed. The target rate reduction supports the FOMC's view that sustained expansion of economic activity, strong labor market conditions and inflation near the FOMC's 2 percent objective remain the most likely outcomes, but uncertainties remain. The FOMC indicated that the timing and size of future adjustments to the target range would consider realized and expected economic conditions relative to its maximum employment objective and its 2 percent inflation objective, including measures of labor market conditions, indicators of inflation and inflation expectations, and financial and international developments.

The influence of the Federal Reserve's monetary policy on the mortgage market is a matter of interest to the MTA, since variability of mortgage rates can affect the number of real estate transactions and thereby impact receipts from the Mortgage Recording Tax ("MRT") and Urban Tax, two important sources of MTA revenue. Mortgage Recording Tax collections for the fourth quarter of 2019 were higher than the fourth quarter of 2018 by $10.4 million (9.6%); receipts in the fourth quarter of 2019 were $10.3 million (8.0%) lower than receipts from the third quarter. Despite the overall recovery of MRT receipts that began in 2012 following the financial crisis, average monthly receipts in the fourth quarter of 2019 remain $25.1 million (39.5%) lower than the monthly average for 2006, just prior to the steep decline in Mortgage Recording Tax revenues. MTA's Urban Tax receipts—which are based on commercial real estate transactions and mortgage recording activity within New York City, and can vary significantly from quarter to quarter based on the timing of exceptionally high-priced transactions—were $4.0 million (2.6%) lower in the fourth quarter of 2019 than receipts for the fourth quarter of 2018; receipts in the fourth quarter of 2019 were $3.2 million (2.1%) higher than receipts from the third quarter. Average monthly receipts in the fourth quarter of 2019 were $17.9 million (24.3%) lower than the monthly average for 2007, just prior to the steep decline in Urban Tax revenues following the 2008 financial crisis.

Results of Operations— One of the most reliable predictors of customer satisfaction is the ability of the LIRR to deliver passengers to their intended destinations on time. For 2019, the LIRR's OTP was 92.4%, an increase of 2.0% from the 2018 OTP rate of 90.4%.

The M7 fleet, with a mean distance between failures (MDBF) of 394,215 miles, continued to be the strongest contributor in the LIRR's fleet reliability achievements. The RCM program and rigorous maintenance schedules and enhanced protocols contributed to this outstanding reliability performance. In addition, as part of LIRR Forward, over 3,200 heated threshold plates were installed/replaced on the M7 fleet to improve door system reliability.

The Maintenance of Equipment Department's increased maintenance efforts also improved the reliability of the C3 fleet, which reached a MDBF of 123,641 - a remarkable jump of 24% from the previous year. The combined diesel fleet achieved an MDBF of 66,983 miles, which exceeded the goal by 31.3%. This improvement was a result of a substantial increase in C3, DE and DM fleet MDBF in 2019.

At the end of 2019, the multiple unit (MU) electric fleet consisted of 826 M7, 26 M9 and 142 M3 cars available for revenue service. The diesel fleet consisted of 134 C3 coach cars and 45 diesel locomotives. The MU and diesel (C3 Coach) spare ratio was 8.8% and 1.5% respectively. The AM peak requirement at year-end was 866 for the MU fleet and 115 for the C3 coaches.

SIGNIFICANT CAPITAL ASSET ACTIVITY

Capital Program— The LIRR Modernization Program is a multibillion dollar investment in the regional transportation infrastructure that aims to foster Long Island's economic growth for generations to come. This comprehensive program to reconstruct and improve the LIRR system is moving forward with planning, design and construction. These projects range from large system expansion efforts, such as the LIRR Expansion Project from Floral Park to Hicksville and East Side Access, to improvements to existing infrastructure, such as bridge replacements, substation replacements and station enhancements. Collectively, these projects will work together to improve the overall LIRR system efficiency and reliability.

In 2019, 14 stations (Baldwin, Bayside, Bellmore, Brentwood, Deer Park, East Hampton, Farmingdale, Great Neck, Merrick, Northport, Port Jefferson, Stewart Manor, Syosset and Valley Stream) received enhancements and upgrades, including new LED lighting, USB charging ports, free public Wi-Fi, interactive digital kiosks and related improvements.

In 2019, seven bridges were replaced and/or rehabilitated, which consist of Cherry Lane, Springfield Boulevard, Tyson Avenue, Nassau Boulevard, Accabonac Road, North Main Street and Flushing Main Street. Bridges that stand 14' in height or less are vulnerable to vehicle strikes; in 2016, there were 20 bridge strikes in Nassau County alone. Replacing low-hanging bridges improves the safety and reliability of both vehicles and LIRR passengers.

Nassau Switch in Mineola is one of the most highly trafficked areas in the LIRR system, with over 200 train traverses every day. The switch installation, which allows trains to be guided from one track to another, was upgraded over several weekends this past fall to prepare for the future third track between Floral Park and Hicksville. These switch upgrades, among many other initiatives, have resulted in 43 percent fewer cancellations, 22 percent fewer short trains and 30 percent fewer trains delayed over 15 minutes.

The LIRR Expansion Project (Main Line Third Track) between Floral Park and Hicksville is on schedule and within budget. Major project completions included the Urban Avenue and Covert Avenue grade crossing eliminations. Parking garage construction continues at Mineola Harrison Avenue and Westbury (North) with the Westbury garage to be completed at the end of 2020.

In addition to the above, Positive Train Control (PTC) installation is scheduled for completion by December 31, 2020. In 2019, PTC was activated on more than 100 miles of track, including the entire Far Rockaway, Long Beach, Oyster Bay, Port Jefferson and West Hempstead Branches.

The 2019 Annual Track Program continued LIRR's cyclical replacement of track assets, including replacement of 16,206 mechanized ties on the Montauk branch; 38,576 concrete ties on the Main Line Branch; 9 switch installations at various locations, 12 grade crossings at various locations; and 154,464 pieces of contingency welded rail on the Main Line branch.

OTHER

Customer Service— Keeping customers fully informed in real time is a high priority of the LIRR, and the Rail Road continues to explore ways to improve in this area. As part of LIRR Forward, the LIRR met regularly with elected officials and members of the public to receive feedback on LIRR services, including "customer conversation" Q&A sessions hosted by the LIRR President and senior staff and over three hundred "meet the manager" sessions. The LIRR Public Information Office (PIO) continues to improve messaging protocols to provide customers with recovery estimates for service disruptions as well as early morning messages in advance of anticipated disruptions. Since January 2019, riders have been able to see exactly where their trains are, in real time, thanks to myLIRR.org. This online tool uses real-time GPS tracking technology, enabling our customers to pull up the location of their train and expected time of arrival. It also provides information such as the car length of a train, train direction and whether it's diesel or electric.

Customer Amenities **-** During 2019, LIRR completed and advanced several improvement projects, that will enhance the customer experience. These included:

- In 2019, 26 new M9 rail cars entered passenger service. The new cars incorporate and improve upon the most successful and popular features of the MTA's two recent electric car fleets, the LIRR's familiar M7 electric cars and the M8 cars serving Metro-North's New Haven Line. A total of 202 cars are expected to be put into revenue service over the next several years.

- The Enhanced Station Initiatives project enhanced the appearance, function, safety, and customer experience at 14 LIRR stations: Deer Park, Brentwood, Merrick, Stony Brook, Syosset, East Hampton, Bellmore, Farmingdale Great Neck, Bayside, Northport, Valley Stream, Ronkonkoma, and Baldwin.

- The Mentor Station Component Replacement project included rehabilitation to two stations: Laurelton Station and Locust Manor Station. At Laurelton Station the canopy, platform, and staircases were replaced. At Locust Manor, replacement of chain link fencing; rehabilitation of the pedestrian walkway and sidewalk curbs were completed. Station Enhancements to the Stewart Manor Station to improve the appearance of the station were completed as well. Improvements included installation of new art glass within the platform shelter sheds, landscaping, new stamped concrete sidewalks, bike racks, and new curbs.

Customer Satisfaction **-** In 2019, LIRR "Overall Customer Satisfaction" increased to 80% from 76% in 2018, reversing the declining trend of the previous two years. Many important initiatives, such as the LIRR Forward program contributed to service improvements. Although the LIRR undertook a record number of trackwork programs, signal improvements, major capital renewal projects (i.e. Main Line Expansion), it still managed to experience improved OTP, record ridership, reduced short trains, enhanced reliability – all favorably impacting customer perceptions. Also, "Overall Train Service" satisfaction increased (80% in 2019 vs. 75% in 2018), while "On Time Performance" followed closely showing an increase in satisfaction (75% in 2019 vs. 71% in 2018); OTP is significantly tied to train service operations. The highest scoring attributes in 2019 were related to "Courtesy & Responsiveness of Conductors" and "Satisfaction with MTA eTix" - both received 92%, while the satisfaction scores for Train Scheduling attributes received the largest increases compared to 2018

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MTA LONG ISLAND RAIL ROAD
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF NET POSITION
DECEMBER 31, 2019 AND 2018
(Dollars in thousands)

	Business-Type Activities 2019	Business-Type Activities 2018
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
CURRENT ASSETS:		
Cash (Note 3)	$ 6,959	$ 8,677
Fare cards	8,839	14,049
Invested funds at MTA		22,681
Receivables:		
Passenger	5,650	8,193
Due from MTA and affiliated agencies (Note 11)	166,618	129,930
Due from NYSDOT	1,289	3,121
Rents	2,736	6,447
Other	23,826	30,338
Less allowance for doubtful accounts	(4,534)	(7,198)
Receivables—net	195,585	170,831
Materials and supplies, net of allowance of $49,482 and $48,161 in 2019 and 2018, respectively	149,730	150,049
Prepaid expenses and other current assets	33,495	30,691
Total current assets	394,608	396,978
NONCURRENT ASSETS:		
Capital assets (Notes 2 and 5):		
Land and construction work-in-progress	2,647,145	1,648,818
Other Capital assets (net of accumulated depreciation)	5,234,383	5,177,128
Total noncurrent assets	7,881,528	6,825,946
Total assets	8,276,136	7,222,924
DEFERRED OUTFLOWS OF RESOURCES		
Deferred outflows for pension (Note 7)	383,261	241,629
Deferred outflows for postemployment benefits other than pensions (Note 8)	175,477	193,147
Total deferred outflows of resources	558,738	434,776
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	$ 8,834,874	$ 7,657,700

See notes to financial statements (Continued)

MTA LONG ISLAND RAIL ROAD
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF NET POSITION
DECEMBER 31, 2019 AND 2018
(Dollars in thousands)

	Business-Type Activities	
	2019	2018
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION		
CURRENT LIABILITIES:		
Accounts payable	$ 63,625	$ 102,322
Due to MTA and affiliated agencies (Note 11)	125,536	47,413
Accrued expenses and other liabilities:		
Salary, wages and payroll taxes	51,349	33,006
Vacation and sick pay benefits	80,069	75,331
Current portion—retirement and death benefits	740	2,881
Current portion—estimated liability arising from injuries to persons (Note 9)	40,588	35,663
Current portion—loan repayment (Note 10)	3,406	3,077
Environmental remediation (Note 13)	6,484	6,734
Total accrued expenses	182,636	156,692
Unearned revenues	11,479	12,952
Total current liabilities	383,276	319,379
NONCURRENT LIABILITIES:		
Estimated liability arising from injuries to persons (Note 9)	103,678	93,551
Net pension liability	1,077,521	882,051
Postemployment benefits other than pensions (Note 8)	2,451,276	2,602,499
Environmental remediation (Note 13)	27,325	21,858
Loan repayment (Note 10)	25,326	21,658
Other long-term liabilities (Note 14)	85,770	83,390
Total noncurrent liabilities	3,770,896	3,705,007
Total liabilities	4,154,172	4,024,386
DEFERRED INFLOWS OF RESOURCES:		
Deferred inflows from pension	19,914	85,786
Deferred inflows from post employment benefits other than pensions	244,174	2,704
Total deferred inflows of resources	264,088	88,490
NET POSITION:		
Net investment in capital assets	7,881,528	6,825,946
Unrestricted deficit	(3,464,914)	(3,281,122)
Total net position	4,416,614	3,544,824
TOTAL LIABILITIES AND NET POSITION	$ 8,834,874	$ 7,657,700

MTA LONG ISLAND RAIL ROAD

(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
YEARS ENDED DECEMBER 31, 2019 AND 2018
(Dollars in thousands)

	Business-Type Activities 2019	2018
OPERATING REVENUES:		
Passenger	$ 768,739	$ 740,477
Rents and utilities	23,717	27,822
Advertising	9,889	11,938
Food and beverage	-	550
Other	6,898	8,586
Total operating revenues	809,243	789,373
OPERATING EXPENSES:		
Salaries and wages	711,738	687,085
Retirement and other employee benefits	317,820	298,016
Post Employment Benefits other than pensions	192,469	219,751
Electric Power	80,528	88,946
Fuel	20,162	21,068
Insurance	20,326	19,880
Claims	9,995	13,505
Maintenance and other operating contracts	62,181	73,056
Environmental remediation	9,954	1,936
Professional service contracts	31,001	46,657
Material and supplies	147,223	136,464
Depreciation and amortization	379,199	362,333
Other	16,242	14,179
Total operating expenses	1,998,838	1,982,876
OPERATING LOSS	(1,189,595)	(1,193,503)
NONOPERATING REVENUES:		
Operating subsidies from MTA	653,179	824,348
FTA/FEMA Reimbursement		311
Total nonoperating revenues	653,179	824,659
LOSS BEFORE CAPITAL CONTRIBUTIONS	(536,416)	(368,844)
CAPITAL CONTRIBUTIONS—		
MTA contributions for capital projects	1,408,206	1,080,692
CHANGE IN NET POSITION	871,790	711,848
NET POSITION—Beginning of year	3,544,824	4,246,107
Restatement of beginning net position (Note 2)	-	(1,413,131)
NET POSITION—End of year	$ 4,416,614	$ 3,544,824

See notes to financial statements.

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MTA LONG ISLAND RAIL ROAD

(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2019 AND 2018
(Dollars in thousands)

	Business-Type Activities 2019	Business-Type Activities 2018
CASH FLOWS FROM OPERATING ACTIVITIES:		
Passenger receipts	$ 770,230	$ 741,523
Rents, advertising, and other receipts	43,702	44,337
Payroll and related fringe	(1,125,249)	(1,123,848)
Other operating expenses	(314,582)	(496,262)
Net cash used in operating activities	(625,899)	(834,250)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Operating subsidies from MTA	653,179	824,348
FTA/FEMA reimbursement	-	311
Cash provided by noncapital financing activities	653,179	824,659
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Capital contributions from MTA	2,524,650	1,843,727
Capital expenditures incurred for capital program	(2,553,646)	(1,830,900)
Net cash provided by/(used in) capital financing activities	(28,996)	12,827
NET (DECREASE) INCREASE IN CASH	(1,716)	3,236
CASH—Beginning of year	8,677	5,441
CASH—End of year	$ 6,961	$ 8,677
RECONCILIATION OF CASH FLOWS FROM OPERATING ACTIVITIES:		
Operating loss	$ (1,189,595)	$ (1,193,503)
Adjustments to reconcile operating loss to net cash used in operating activities:		
Depreciation and amortization	379,199	362,333
Net increase in accounts payable, accrued expenses, other liabilities, unearned revenues	305,383	1,522,200
Net decrease (increase)in receivables	350	(2,752)
Net (increase) decrease in materials and supplies, prepaid expenses and other current assets, other assets	(121,236)	(1,522,528)
NET CASH USED IN OPERATING ACTIVITIES	$ (625,899)	$ (834,250)
NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES		
Contributed capital assets	$ 1,118,865	$ 744,882
Capital assets related liabilities	91,555	85,965
TOTAL NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES	$ 1,210,420	$ 830,847

See notes to financial statements.

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THE LONG ISLAND RAIL ROAD COMPANY PLAN FOR ADDITIONAL PENSIONS

STATEMENTS OF FIDUCIARY NET POSITION
AS OF DECEMBER 31, 2019 AND 2018
(Amounts in thousands)

	2019	2018
ASSETS:		
Cash	$ 1,114	$ 1,228
Investments — at fair value:		
Investments measured at readily determined fair value	161,583	147,855
Investments measured net asset value	676,685	669,902
Total investments	838,267	817,757
Receivables:		
Participant and union contributions	20	-
Other receivable	3	3
Forward currency contract receivable	-	89
Variation Margin	30	-
Securities sold	104	58
Accrued interest and dividends	477	516
Total receivables	635	666
Total assets	840,016	819,652
LIABILITIES:		
Due to broker for securities purchased	581	507
Forward Currency & Margin contracts	83	55
Due to broker for investment fees	(342)	1,035
Due to broker for administrative expenses	(14)	(7)
Other Liabilities	0	-
Total liabilities	309	1,590
PLAN NET POSITION RESTRICTED FOR PENSIONS	$ 839,708	$ 818,062

See notes to financial statements.

THE LONG ISLAND RAIL ROAD COMPANY PLAN FOR ADDITIONAL PENSIONS

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(Amounts in thousands)

	2019	2018
ADDITIONS:		
Investment income / (loss):		
Net realized and unrealized (losses) / gains	$ 108,457	$ (35,344)
Interest income	2,216	1,715
Dividend income	8,309	11,441
Total investment income / (losses)	118,982	(22,188)
Less investment expenses	(3,642)	(8,910)
Total Net investment income / (losses)	115,339	(31,098)
Contributions (Note 5):		
Employer	62,774	59,500
Participant and union	249	334
Total contributions	63,023	59,834
Total additions	178,362	28,736
DEDUCTIONS:		
Benefits paid to participants	(157,254)	(159,565)
Administrative expenses	(718)	(1,180)
Other	-	-
Total deductions	(157,971)	(160,745)
NET INCREASE / (DECREASE) IN PLAN NET POSITION	20,391	(132,010)
PLAN NET POSITION RESTRICTED FOR PENSIONS		
Beginning of year	819,317	951,327
End of year	$ 839,708	$ 819,317

See notes to financial statements.

1. BASIS OF PRESENTATION

Reporting Entity—In 1966, the Metropolitan Transportation Authority ("MTA") acquired the capital assets of MTA Long Island Rail Road from the former Pennsylvania Railroad Company. In February 1980, MTA Long Island Rail Road became a component unit of the MTA pursuant to New York State Public Authorities Law. MTA Long Island Rail Road is a part of the related financial reporting group of the MTA and is a component unit of the MTA. The MTA is a component unit of the State of New York.

MTA Long Island Rail Road performs a public service of providing essential passenger transportation between New York City and Long Island. Substantial deficits result from providing these services and MTA Long Island Rail Road expects that such deficits will continue in the foreseeable future. Funding for MTA Long Island Rail Road's operations and capital needs is provided by MTA, which obtains the required funds from state and federal grants, the sale of bonds to the public and other sources. Certain funding by MTA is made to MTA Long Island Rail Road on a discretionary basis. The continuance of MTA Long Island Rail Road's operations has been, and will continue to be, dependent upon the receipt of adequate funds to subsidize operating deficits.

The operations of MTA Long Island Rail Road are classified as Business-Type activities in these financial statements. MTA Long Island Rail Road is operationally and legally independent of the MTA. MTA Long Island Rail Road enjoys certain rights typically associated with separate legal status. However, MTA Long Island Rail Road is included in the MTA's consolidated financial statements as a blended component unit because of the MTA's financial accountability and MTA Long Island Rail Road is under the direction of the MTA Board (a reference to "MTA Board" means the board of MTA and/or the boards of the MTA Long Island Rail Road and other MTA component units 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 MTA Long Island Rail Road in its consolidated financial statements.

MTA Long Island Rail Road is not liable for real estate or personal property taxes on its properties or sales taxes on substantially all its purchases.

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. Separate financial statements are presented for the fiduciary fund.

The Long Island Rail Road Company Plan for Additional Pensions ("Additional Plan") is categorized as a Pension Fund and is a fiduciary component unit of MTA Long Island Rail Road.

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

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting—The accompanying 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 Long Island Rail Road 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 Long Island Rail Road adopted the following GASB Statements for the year ended December 31, 2019:

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

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

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

GASB Statement No. 90, "Majority Equity Interest- an Amendment of GASB Statements No. 14 and No. 61", improves consistency in the measurement and comparability of the financial statement presentation of majority equity interests in legally separate organizations and improves the relevance of financial statement information for certain component units. The Statement defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. The Statement also establishes that ownership of a majority equity interest in a legally separate organization results in the government being financially accountable for the legally separate organization and, therefore, the government should report that organization as a component unit. In addition, the Statement also requires that a component unit in which a government has a 100 percent equity interest account for its assets, deferred outflows of resources, liabilities and deferred inflows of resources at acquisition value.

GASB Statement No. 90 is effective for reporting periods beginning after December 15, 2018. The adoption of this Statement did not have a material impact to the MTA's financial statements.

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.

87	*Leases*	2020
89	*Accounting for Interest Cost Incurred Before the End of a Construction Period*	2020
91	*Conduit Debt Obligations*	2021
92	*Omnibus 2020*	2021
93	*Replacement of Interbank Offered Rates*	2021
94	*Private-Public and Public-Public Partnerships and Availability Payment Arrangements*	2023

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

MTA Investment Pool—The MTA, on behalf of the MTA Long Island Rail Road, invests funds, which are not immediately required for the MTA Long Island Rail Road'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. All investments are held by the MTA's agent in custody accounts in the name of the MTA. The Authority categorizes its fair value measurement within the fair value hierarchy established by U.S. GAAP. The hierarchy is based on the valuation inputs used to measure fair value of the assets. Level 1 inputs are quoted prices in an active market for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs. Long

Island Rail Road's investment in the MTA Investment Pool is value based on other observable inputs (Level 2 inputs).

Materials and Supplies—Materials and supplies, except for rebuilt items, are valued at the lower of average cost or market, net of obsolescence reserve. Rebuilt items are recorded at 50% of their average purchase price.

Fare Cards—MTA Long Island Rail Road sells joint prevalued MetroCard ("fare cards") on consignment on behalf of an affiliated agency. Such fare cards are recorded at cost and reimbursed to the affiliated agency upon sale.

Capital Assets—Capital assets and improvements include all land, construction work-in-progress, buildings and structures, equipment, infrastructure—road and leasehold improvements of MTA Long Island Rail Road having a minimum useful life of 3 years and a cost of more than $25. Capital assets also include the Pennsylvania Station Leasehold further discussed in Note 6 to these financial statements.

Capital assets are stated at historical cost. Accumulated depreciation and amortization are reported as reductions of capital assets. Depreciation is computed using the straight-line method based upon estimated useful lives; 7 to 50 years for buildings and structures; 25 to 35 years for passenger cars, locomotives and work train equipment; 3 to 20 years for other equipment; and 6 to 43 years for infrastructure—road. Capital lease assets and leasehold improvements are amortized over the term of the lease or the life of the asset, whichever is less. The Pennsylvania Station Leasehold is amortized over 30 years.

MTA Long Island Rail Road reviews long-lived assets for impairment when events or circumstances indicate that the carrying amount may not be recoverable and records the appropriate loss when assets are disposed of or are determined to be impaired.

Pollution Remediation Projects—Effective January 1, 2008, pollution remediation costs have been charged in accordance with the provisions of GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations* (see Note 13). An operating expense provision and corresponding liability measured at its current value using the expected cash flow method have been recognized for certain pollution remediation obligations that 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: an imminent threat to public health due to pollution exists; the MTA Long Island Rail Road is in violation of a pollution prevention-related permit or license; the MTA Long Island Rail Road is named by a regulator as a responsible or potentially responsible party to participate in remediation; the MTA Long Island Rail Road is named or there is evidence to indicate that it will be named in a lawsuit that compels participation in remediation activities; or the MTA Long Island Rail Road voluntarily commences or legally obligates itself to commence remediation efforts.

Operating Revenues—Passenger revenues are recognized as income as they are used. Tickets are assumed to be used in the month of purchase, except for advance purchases of monthly and weekly tickets. Unearned revenues are recognized for the estimated amount of unused tickets. Revenues from rents are recognized as earned. Revenues from sundry, such as food and beverages, are recorded when the items are sold.

Nonoperating Revenues—Nonoperating subsidies are provided to MTA Long Island Rail Road by MTA as part of an MTA approved financial plan. Nonoperating capital projects subsidies are provided as part of the MTA approved 5 Year Capital Program based on scheduled project activity occurring during the current 5-year capital program lifecycle.

Nonexchange Transactions with MTA — In accordance with GASB Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*, funds contributed by MTA for the MTA Long Island Rail Road's capital project expenditures are reported as nonoperating revenue when such expenditures are accrued. MTA contributions for capital projects are included as nonoperating capital projects subsidy in the accompanying statements of revenues, expenses and changes in net position.

The cost of certain services provided by MTA for the benefit of the MTA Long Island Rail Road is accrued as incurred. MTA does not charge the MTA Long Island Rail Road (or other related groups) for the cost of Police services relating to the other lines.

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 Long Island Rail Road are reported as operating expenses. All other expenses are reported as non-operating expenses.

Compensated Absences—MTA Long Island Rail Road has accrued the full value (including fringe benefits) of all vacation and sick leave benefits earned by employees to date if the leave is attributable to past service and it is probable that MTA Long Island Rail Road will compensate the employees for the benefits through paid time off or some other means, such as cash payments at termination or retirement.

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 for MTA Long Island Rail Road was $8 million. For claims arising from incidents that occurred on or after November 1, 2009, but before November 1, 2012, the self-insured retention limits for MTA Long Island Rail Road was $9 million. Effective November 1, 2012 the self-insured retention limits for ELF was increased to $10 million for MTA Long Island Rail Road. Effective October 31, 2015, the self-insured retention limits for ELF was increased to $11 million for the MTA Long Island Rail Road. 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 million. The retrospective 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 million per occurrence with a $50 million annual aggregate. FMTAC charges appropriate annual premiums based on loss experience and exposure analysis to maintain the fiscal viability of the program. On December 31, 2019, the balance of the assets in this program was $164.1 million.

MTA also maintains an All-Agency Excess Liability Insurance Policy that affords the MTA Group additional coverage limits of $350 million for a total limit of $400 million ($350 million excess of $50 million). 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 million.

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

On December 15, 2019, FMTAC renewed the primary coverage on the Station Liability and Force Account liability policies $11 million per occurrence loss for MTA Long Island Rail Road.

Property Insurance — Effective May 1, 2019, FMTAC renewed the all-agency property insurance program. For the annual period commencing May 1, 2019, FMTAC directly insures property damage claims of the Related Entities in excess of a $25 million per occurrence deductible, subject to an annual $75 million aggregate deductible. The total All Risk program annual limit is $575 million 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 million per occurrence. The property insurance policy provides replacement cost coverage for all risks (including Earthquake, Flood and Wind) of direct physical loss or damage to all real and personal property, with minor exceptions. The policy also provides extra expense and business interruption coverage.

Supplementing the $575 million per occurrence noted above, FMTAC’s property insurance program has been expanded to include $125 million of fully collateralized earthquake coverage for an event of a certain index value and for storm surge coverage for losses from storm surges that surpass specified trigger levels in the New York Harbor or Long Island Sound and are associated with named storms that occur at any point in the three-year period from May 23, 2017 to April 30, 2020. The expanded protection is reinsured by MetroCat Re Ltd. 2017-1, a Bermuda special purpose insurer independent from the MTA and formed to provide FMTAC with capital markets based property reinsurance. The MetroCat Re Ltd. 2017-1 reinsurance policy is fully collateralized by a Regulation 114 trust invested in U.S. Treasury Money Market Funds. The additional coverage provided is parametric and available for storm surge losses resulting from a storm that causes water levels that reach the specified index values, and for an earthquake event of a certain index value.

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

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

Additionally, MTA purchases coverage for acts of terrorism which are not certified under TRIPRA to a maximum of $204.3 million in 2019 and $215 million in 2020. Recovery under the terrorism policy is subject to a deductible of $25 million per occurrence and $75 million 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 million future losses in that policy year are subject to a deductible of $7.5 million. The terrorism coverages expire at midnight on December 31, 2020.

All Agency Protective Liability—

FMTAC All-Agency Protective Liability Program. Under the All-Agency Protective Liability Program (“AAPL”), FMTAC directly insures the Related Entities against claims arising out of work performed by independent contractors on capital projects. The policy provides coverage of $2 million per occurrence.

FMTAC All-Agency Protective Excess Liability Program. FMTAC directly insures the Related Entities to provide excess coverage on top of the AAPL. The policy provides coverage of $9 million in excess of $2 million per occurrence, with an $18 million annual aggregate. Any excess is covered by the ELF program.

Self-Insurance and Risk Retention — The MTA Long Island Rail Road is self-insured for liabilities arising from injuries to passengers, employees and others with the exception of injuries to non-employees and off-duty employees arising from occurrences at NYS stations (“Station Liability”), and employees and non-employees, arising from reimbursable project work (“Force Account”). The MTA Long Island Rail Road accrues the estimated total cost for the self-insured liability arising out of these claims. For incidents occurring on or before October 31, 2012, claims arising from Station Liability and Force Account are fully insured up to $9 million per occurrence. That amount was increased to $10 million per occurrence for incidents occurring on or after November 1, 2012 and increased to $11 million on October 31, 2015.

Deferred Compensation Plan—The MTA and its affiliated agencies' employees are participants in a deferred compensation plan established in 1985 in accordance with Internal Revenue Code Section 457. MTA Long Island Rail Road established a trust or custodial account to hold plan assets for the exclusive use of the participants and their beneficiaries. Accordingly, at December 31, 2019 and 2018, plan assets and liabilities are not reflected in the accompanying Statements of Net Position.

Retirement Benefits—MTA Long Island Rail Road's pension plans are governmental plans and, accordingly, are not subject to funding and other requirements of the Employee Retirement Income Security Act of 1974.

MTA Long Island Rail Road 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 MTA Long Island Rail Road's proportionate share thereof in the case of a cost-sharing multiple-employer plan, measured as of MTA Long Island Rail Road's year end. Changes in the net pension liability during the period 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 period 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 period 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 period in which the difference occurred.

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

GASB has issued Statements No. 74 and 75, which replaced GASB Statements No. 43 and 45. The effective date of GASB Statement No. 74 (which applies to financial reporting on a plan basis) is the year ended December 31, 2018. The effective date of GASB Statement No. 75 (which applies to financial reporting by contributing employers) is the year ended December 31, 2019.

The Long Island Rail Road recognizes a proportionate share of the net OPEB liability for the MTA's cost-sharing multiple-employer OPEB Plan, 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.

Restatement of Beginning Net Position

The effect of the implementation of GASB No. 75 and 85 is a restatement of 2018 beginning net position to retroactively report the beginning balances for net OPEB liability, deferred outflows of resources related to OPEB, deferred inflows of resources related to OPEB, and the removal of any net OPEB obligations (assets) along with any payables to the OPEB Plan, as follows:

Net position as of December 31, 2017, as previously reported	$	4,246,107
Composition of Restatement:		
Deferred outflows related to contributions, beginning of the year		83,430
Net OPEB liabilities, beginning of the year		(2,366,347)
Accrued OPEB liabilities		869,786
Total Restatement:		(1,413,131)
Net position as of December 31, 2017, as restated	$	2,832,976

3. CASH

The Bank balances are insured up to $250 in the aggregate by the Federal Deposit Insurance Corporation (“FDIC”) for each bank in which funds are deposited.

The Bank balances in 2019 and 2018 that were not insured were maintained in major financial institutions considered by management to be secure. As of December 31, 2019, and 2018, cash consists of:

	2019		2018	
	Carrying Amount	Bank Balance	Carrying Amount	Bank Balance
Insured (FDIC) or collateralized deposits	$ 4,406	$ 4,216	$ 2,766	$ 4,112
Uninsured and noncollateralized fund on-hand and in-transit	2,553	-	5,911	-
Total cash	$ 6,959	$ 4,216	$ 8,677	$ 4,112

Cash carrying amounts also include deposits in transit and cash on hand offset by any outstanding checks.

MTA Long Island Rail Road or its agent in MTA Long Island Rail Road’s name holds all collateralized deposits. These accounts contain revenue pledged by MTA Long Island Rail Road as collateral for certain MTA Transportation Revenue Bonds, as further described in Note 4 below.

The MTA, on behalf of the Authority, invests funds, which are not immediately required for MTA Long Island Rail Road’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. As such, there were no investments subject to credit or interest rate risk.

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4. TRANSPORTATION REVENUE BONDS

MTA Long Island Rail Road's capital programs are partially funded from the proceeds of bonds, including the MTA's Transportation Revenue Bonds. The Transportation Revenue Bonds are special obligations of MTA, payable from, and secured by a pledge of:

- the gross operating revenues of MTA Long Island Rail Road, Metro-North Commuter Railroad, and the New York City Transit Authority and its component, Manhattan and Bronx Surface Transit Operating Authority until monthly deposits of principal and interest are satisfied under the Transportation Revenue Bond Resolution,
- Triborough Bridge and Tunnel Authority's operating surplus,
- general operating subsidies from the State and local governments,
- special tax-supported operating subsidies, and
- Station maintenance and service reimbursements.

5. CAPITAL ASSETS, NET

The summary of capital assets activity as of December 31, 2019 and 2018, are as follows:

	As of December 31, 2017	Additions/ Reclassifications	Deletions/ Reclassifications	As of December 31, 2018	Additions/ Reclassifications	Deletions/ Reclassifications	As of December 31, 2019
Capital assets, not being depreciated:							
Land	$ 48,112	$ -	$ -	$ 48,112	$ -	$ -	$ 48,112
Construction work-in-progress	1,347,760	1,533,666	1,280,720	1,600,706	1,937,860	939,533	2,599,033
Total capital assets, not being depreciated	1,395,872	1,533,666	1,280,720	1,648,818	1,937,860	939,533	2,647,145
Capital assets, being depreciated:							
Leasehold improvements	46,398	30,117	-	76,515	30,092	-	106,607
Pennsylvania Station leasehold	44,600	-	-	44,600	-	-	44,600
Buildings and structure	3,479,337	312,948	2,277	3,790,008	165,872	389	3,955,491
Equipment:							
Passenger cars and locos	2,628,145	-	26,413	2,601,732	70,200	-	2,671,932
Equipment and other	646,512	20,497	3,448	663,561	47,190	8,831	701,920
Infrastructure—road	3,322,281	470,665	14,250	3,778,696	123,392	21,157	3,880,931
Total capital assets, being depreciated	10,167,273	834,227	46,388	10,955,112	436,746	30,377	11,361,481
Less accumulated depreciation/amortization:							
Leasehold improvements	9,590	2,109	-	11,699	2,540	-	14,239
Pennsylvania Station leasehold	44,272	328	-	44,600		-	44,600
Buildings and structure	1,269,759	97,314	1,197	1,365,876	105,912	248	1,471,540
Equipment:							
Passenger cars and locos	1,568,811	96,421	26,413	1,638,819	96,825	-	1,735,644
Equipment and other	452,509	26,878	3,373	476,014	29,984	8,681	497,317
Infrastructure—road	2,115,943	139,283	14,250	2,240,976	143,940	21,158	2,363,758
Total accumulated depreciation/amortization	5,460,884	362,333	45,233	5,777,984	379,201	30,087	6,127,098
Total capital assets, being depreciated/amortized—net	4,706,389	471,894	1,155	5,177,128	57,545	290	5,234,383
Capital assets—net	$ 6,102,261	$ 2,005,560	$ 1,281,875	$ 6,825,946	$ 1,995,405	$ 939,823	$ 7,881,528

Interest capitalized related to debt recorded by MTA and used to finance MTA Long Island Rail Road's construction work-in-progress as of December 31, 2019 and 2018, is $8,178 and $2,667, respectively.

On April 24, 2015, Governor Cuomo announced that the Federal Railroad Administration had approved a U.S. Federal Railroad Administration loan of $967.1 million under its Railroad Rehabilitation and Improvement Financing Program. MTA, on behalf of Metro-North Railroad, and the Long Island Rail Road, applied for funding to improve the safety of signal systems. The loan will finance the installment of positive train control, a technology designed to remove the potential for human error that can lead to train-involved accidents. The loan was approved by the MTA Board at its meeting on April 29, 2015 and the loan was closed in May 2015. The MTA will issue its Transportation Revenue Bond directly to the Federal Railroad Administration and will repay the obligation by November 15, 2037 at a fixed interest rate of 2.38%. As of December 31, 2019, $446.5M has been drawn down, of which $231.0M was for LIRR's PTC project.

6. LEASE TRANSACTIONS

Pennsylvania Station Leasehold—In 1988, MTA Long Island Rail Road and MTA entered into a 99-year lease agreement with Amtrak for the Pennsylvania Station. This agreement, with an option to renew, is for rights to the lower concourse level and certain platforms. The $44,600 paid to Amtrak by MTA under this agreement is reflected as a leasehold asset and a capital contribution from MTA, which is being amortized over 30 years.

7. EMPLOYEE BENEFITS

MTA Long Island Rail Road sponsors and participates in two defined benefit pension plans for their employees, the Long Island Railroad Company Plan for Additional Pensions (the "Additional Plan") and the Metropolitan Transportation Authority Defined Benefit Plan (the "MTA Defined Benefit Plan"). A brief description of each of the pension plans follows:

Plan Descriptions

1. The Long Island Rail Road Additional Plan—

The Long Island Rail Road Company Plan for Additional Pensions is a single-employer defined benefit pension plan that provides retirement, disability and survivor benefits to members and beneficiaries. The Plan covers MTA Long Island Rail Road employees hired effective July 1, 1971 and prior to January 1, 1988. The Plan's activities, including establishing and amending contributions and benefits are administered by the Board of Managers of Pensions. The LIRR 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 LIRR Additional Plan is a closed plan and members include LIRR employees hired prior to January 1, 1988.

The Long Island Rail Road Company Plan for Additional Pensions is administered by the Board of Managers of Pensions, which is comprised of the Chairman of the MTA, MTA Chief Financial Officer, MTA Director of Labor Relations and the agency head of each participating Employer. The Long Island Rail Road Company Plan for Additional Pensions may be amended by action of the MTA Board. The Additional Plan is a fiduciary component unit of the MTA Long Island Rail Road and is reflected in the Pension Fund section of MTA Long Island Rail Road'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, Long Island Rail Road, Controller, 93-02 Sutphin Boulevard—mail code 1421, Jamaica, New York 11435.

2. MTA Defined Benefit Plan—

The MTA Defined Benefit Pension Plan (the "MTA Plan" or the "Plan") is a cost sharing, multiple-employer pension plan. The Plan covers certain MTA Long Island Rail Road nonrepresented employees hired after December 31, 1987, MTA Metro-North Railroad non-represented employees, certain employees of the former MTA Long Island Bus hired prior to January 23, 1983, MTA Police, MTA Long Island Rail Road represented employees hired after December 31, 1987, certain MTA Metro-North Railroad represented employees, MTA Staten Island Railway represented and nonrepresented employees and certain employees of the MTA Bus Company ("MTA Bus"). MTA Long Island Rail Road, MTA Metro-North Railroad, MTA, 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, which is comprised of the Chairman of the MTA, MTA Chief Financial Officer, MTA Director of Labor Relations and the agency head of each participating Employer. The MTA Plan may be amended by action of the MTA Board.

A stand-alone financial report may be obtained at www.mta.info or by writing to the MTA Comptroller, 2 Broadway, 16th Floor, New York, New York, 10004.

Benefits Provided

1. The Long Island Rail Road 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 5 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 Company, subject to the obligations of the Company under its collective bargaining agreements. The Company's Board of Directors must approve all amendments. 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 to the Additional Plan. The Company contributes additional amounts based on actuarially determined amounts that are designed to accumulate sufficient assets to pay benefits when due.

The LIRR Additional Plan also provide death and disability benefits. Participants who become disabled after accumulating 10 years of credited service and who meet the requirements 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 5 thousand dollars is payable upon death on behalf of a nonvested 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, retirement benefits establishment and changes are presented to the MTA Board and must be accepted and approved by the MTA Board.

2. MTA Defined Benefit Plan

Pension Benefits—Retirement benefits are paid from the Plan to covered 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 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 who are eligible for a deferred vested benefit are not eligible to receive a service retirement allowance or early retirement allowance.

Pre-1988 MTA Long Island Rail Road participants are eligible for a service retirement allowance upon termination if the participants have either: (a) attained age 65 and completed at least 5 years of credited service, or if an employee on January 1, 1988 completed at least 10 years of credited service, or (b) attained age 50 and has completed at least 20 years of credited service. Terminated participants who were not employees on January 1, 1988 with 5 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.

In 2017, the reduction of pension benefits for amounts payable under the Tier II Federal Railroad Retirement Act was reduced from 100% to 90%. This change for Long Island Rail Road represented employees was effective upon ratification of respective collective bargaining agreements, with various ratification dates occurring in 2017. Management employees were effective November 15, 2017.

Death & 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 ten years of credited service for covered MTA Long Island Rail Road management and represented employees. The disability retirement allowance for covered and MTA Long Island Rail Road management is calculated based on the participant's credited service and final average salary ("FAS") but not less than ⅓ of FAS. 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 calculated 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.

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, retirement benefits establishment and changes are presented to the MTA Board and must be accepted and approved by the MTA Board.

Membership

Membership in the Long Island Rail Road Additional Pension Plan ("LIRR Additional Pension Plan" or "Additional Plan") consisted of the following at January 1, 2018 and January 1, 2017, the date of the latest actuarial valuation:

	January 1 2018	January 1 2017
Active plan members	84	146
Retirees and beneficiaries receiving benefits	5,755	5,833
Vested formerly active members not yet receiving benefits	24	28
Total	5,863	6,007

Contributions and Funding Policy

1. Long Island Rail Road Company Plan for Additional Pensions 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 Company's Board of Managers of Pensions (1.5% in 2019 and 2018), 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 Company's Board of Managers of Pensions (1.5% in 2019 and 2018).

Funding for the Additional Plan by the Company is provided by MTA, which obtains the required funds from New York State, federal grants, the sale of bonds to the public and other sources. Certain funding by MTA is made to the Company on a discretionary basis. The continuance of the Company's funding for the Additional Plan has been, and will continue to be, dependent upon the receipt of adequate funds.

Contributions as a percent of covered payroll was 867.47% for the year ended December 31, 2019. The actual contributions for the year ended December 31, 2019 was $62,774.

Contributions as a percent of covered payroll was 451.83% for the year ended December 31, 2018. The actual contributions for the year ended December 31, 2018 was $59,500.

2. MTA Defined Benefit Plan

MTA Long Island Rail Road's 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 Plan are recognized in the period in which the contributions are due. The following summarizes the types of employee contributions made to the Plan.

Effective January 1, 1994, covered MTA Long Island Rail Road nonrepresented employees are required to contribute to the 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 contributing to the Plan. MTA Long Island Rail Road employees may purchase prior service from January 1, 1988 through December 31, 1993 by paying the contributions that would have been required of that employee for the years in question, calculated as described in the first sentence, had the Plan been in effect for those years.

Covered MTA Long Island Rail Road represented employees who first became eligible to be Plan participants prior to January 30, 2008 contribute 3% of salary. MTA Long Island Rail Road represented employees who became participants after January 30, 2008 contribute 4% of salary. MTA Long Island Rail Road represented employees are required to make the employee contributions for ten years, or fifteen years if hired after certain dates in 2014 as per collective bargaining agreements.

Contributions as a percent of covered payroll was 13.83% for the year ended December 31, 2019. The actual contributions for the year ended December 31, 2019 was $121,740.

Contributions as a percent of covered payroll was 12.97% for the year ended December 31, 2018. The actual contributions for the year ended December 31, 2018 was $114,854.

Net Pension Liability—MTA Long Island Rail Road's net pension liabilities for each of the pension plans reported at December 31, 2019 were measured as of December 31, 2018. The total pension liability for each of the pension plans was determined by an actuarial valuation as of the valuation date of January 1, 2018, that was updated to roll forward the total pension liability to the respective year-end. Actuarial valuations are performed annually as of January 1. 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.

Actuarial Assumptions—The total pension liability in the January 1, 2018 actuarial valuations was determined using the following actuarial assumptions, which were based on the 2012 actuarial experience study, for each of the pension plans as follows:

	Additional Plan	MTA Defined Benefit Plan
Actuarial cost method	Entry Age Cost Method	Frozen Initial liability (FIL)
Amortization method	Period specified in current valuation report (closed 15-year period from January 1, 2018) with level dollar payments.	For FIL bases, period specified in current valuation report. 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 each group.
Actuarial 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.
Interest rate	Net rate of 7.0% for 2018, per annum, net of investment expenses.	Net rate of 7.0% for 2018, per annum, net of investment expenses.
Inflation	2.5% per annum	2.5% per annum
Railroad retirement wage base	3.5% per year	3.5% per year
Mortality	Based on experience of all LIRR members reflecting mortality improvement on generational basis using Scale AA.	Based on experience of all MTA members reflecting mortality improvement on generational basis using Scale AA.
Separations other than for normal retirement	Tables based on recent experience.	Tables based on recent experience.
Rates of normal retirement	Tables based on recent experience. Rates vary by age, years of service at retirement.	Tables based on recent experience. Rates vary by age, years of service at retirement and Tier/Plan.
Salary increases	3.0% per year.	Varies by years of employment and employee group; 3.0% General Wage Increases ("GWI") for TWU MTA Bus hourly employees.
Overtime	Earnings in each year increased by 65% for represented employees to account for overtime and by 20% in the year prior to assumed retirement and by 10% in the year prior to termination (other than retirement) for non-represented employees to account for unused vacation pay.	Tables based on recent experience.
Cost-of-living adjustments	Not Applicable.	1.375% per annum.
Provision for expenses	The provision for administrative expenses was modified to equal an average of the prior three years.	An average of the prior three years' administrative charges added to the normal cost.

Expected Rate of Return on Investments

The long-term expected rate of return on pension plan investments was 7.00% for both the Additional Plan and the MTA Defined Benefit Plan. The best-estimate range for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation.

The target allocation and best estimates of arithmetic real rates of return ("RROR") for each major asset class included in each of the pension funds are as follows:

	Additional Plan		MTA Defined Benefit Plan	
Asset Class	Target Allocation*	Real Rate of Return	Target Allocation*	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 Market 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 Market 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%
Commodities	9.00%	9.50%	9.00%	9.50%
Private Equity	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%
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%**

* Based on March 2014 Investment Policy

Discount Rate

As of December 31, 2019, the discount rate used to measure the total pension liability of both the Additional Plan and the MTA Defined Benefit Plan was 7%.

The projection of cash flows used to determine the discount rate assumed that plan contributions will be made in accordance with the Employer funding policy as projected by the Plan's actuary. Based on those assumptions, the 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 projected benefit payments to determine the total pension liability.

Changes in Net Pension Liability—Additional Plan

Changes in MTA Long Island Rail Road's net pension liability for the Additional Plan for the year ended December 31, 2019, based on the December 31, 2018 measurement date, are as follows:

	Additional Plan		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balance—December 31, 2017	$ 1,471,828	$ 951,327	$ 520,501
Changes for calendar year 2018:			
Service cost	1,057	-	1,057
Interest on total pension liability	97,612	-	97,612
Effect of liability gains & losses	213	-	213
Benefit payments	(159,565)	(159,565)	-
Administrative expense	-	(1,180)	1,180
Member contributions	-	334	(334)
Employer contributions	-	59,500	(59,500)
Net Investment Income	-	63,047	(63,047)
Investment gains & losses	-	(94,144)	94,144
Balance—December 31, 2018	$ 1,411,144	$ 819,318	$ 591,826

Changes in MTA Long Island Rail Road's net pension liability for the Additional Plan for the year ended December 31, 2018, based on the December 31, 2017 measurement date, are as follows:

	Additional Plan		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balance—December 31, 2016	$ 1,526,304	$ 777,217	$ 749,087
Changes for calendar year 2017:			
Service cost	1,874	-	1,874
Interest on total pension liability	101,477	-	101,477
Effect of economic/demographic gains or losses	1,890	-	1,890
Benefit payments and withdrawals	(159,717)	(159,717)	-
Non-employer contributions	-	145,000	(145,000)
Employer contributions	-	76,523	(76,523)
Member contributions	-	760	(760)
Net Investment Income	-	112,614	(112,614)
Administrative expense	-	(1,070)	1,070
Balance—December 31, 2017	$ 1,471,828	$ 951,327	$ 520,501

The following presents the MTA Long Island Rail Road's net pension liability calculated at the measurement dates using the current discount rate of 7.00% for the Additional Plan, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.0%) or 1-percentage point higher (8.0%) than the current rate:

2018	1% Decrease (6.0%)	Discount Rate (7.0%)	1% Increase (8.0%)
Net pension liability	$ 701,222	$ 591,827	$ 496,547

2017	1% Decrease (6.0%)	Discount Rate (7.0%)	1% Increase (8.0%)
Net pension liability	$ 636,713	$ 520,501	$ 419,474

MTA Long Island Rail Road's Proportion of Net Pension Liability—MTA Defined Benefit Plan

The following table presents MTA Long Island Rail Road's proportionate share of the net pension liability of the MTA Defined Benefit Plan at the measurement date December 31, 2018, and the proportion percentage of the net pension liability of the MTA Defined Benefit Plan allocated to MTA Long Island Rail Road:

MTA Long Island Railroad's proportion of the net pension liability	33.176 %
MTA Long Island Railroad's proportionate share of the net pension liability	$ 485,694

The following table presents MTA Long Island Rail Road's proportionate share of the net pension liability of the MTA Defined Benefit Plan at the measurement date December 31, 2017, and the proportion percentage of the net pension liability of the MTA Defined Benefit Plan allocated to MTA Long Island Rail Road:

MTA Long Island Railroad's proportion of the net pension liability	35.402 %
MTA Long Island Railroad's proportionate share of the net pension liability	$ 361,550

MTA Long Island Rail Road's proportion of the respective Plan's net pension liability was based on actual required contributions of the participating employer for the calendar year.

The following table presents MTA Long Island Rail Road's proportionate share of the net pension liability calculated at the measurement date using the discount rate of 7.00% for the MTA Defined Benefit Plan, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.0%) or 1-percentage point higher (8.0%) than the current rate:

2018	1% Decrease (6.0%)	Current Discount Rate (7.0%)	1% Increase (8.0%)
MTA Long Island Railroad's proportionate share of the net pension liability	$ 712,122	$ 485,694	$ 294,696

2017	1% Decrease (6.0%)	Current Discount Rate (7.0%)	1% Increase (8.0%)
MTA Long Island Railroad's proportionate share of the net pension liability	$ 583,495	$ 361,550	$ 174,276

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

For the year ended December 31, 2019 and 2018, MTA Long Island Rail Road recognized pension expense related to each pension plans as follows:

Pension Plans	2019	2018
Additional Plan	$ 57,499	$ 47,936
MTA Defined Benefit Plan	114,854	120,937
Total	$ 172,353	$ 168,873

At December 31, 2019, MTA Long Island Rail Road reported deferred outflow of resources and deferred inflow of resources for each pension plan as follows:

	Additional Plan		MTA Defined Benefit Plan		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	$ -	$ -	$ 62,767	$ (7,058)	$ 62,767	$ (7,058)
Changes in assumptions	-	-	2,799	(12,856)	2,799	(12,856)
Net difference between projected and actual earnings on pension plan investments	85,776	(34,949)	78,420	-	164,196	(34,949)
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	3,933	-	3,933	-
Employer contribution to plan subsequent to the measurement date of net pension liability	62,774	-	121,740	-	184,514	-
Total	$ 148,550	(34,949.00)	$ 269,659	$ (19,914)	$ 418,209	$ (54,863)

At December 31, 2018, MTA Long Island Rail Road reported deferred outflow of resources and deferred inflow of resources for each pension plan as follows:

	Additional Plan		MTA Defined Benefit Plan		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	$ -	$ -	$ 3,244	$ -	$ 3,244	$ -
Changes in assumptions	-	-	-	(16,169)	-	(16,169)
Net difference between projected and actual earnings on pension plan investments	-	(22,499)	48,732	-	48,732	(22,499)
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	15,298	-	15,298	-
Employer contribution to plan subsequent to the measurement date of net pension liability	59,500	-	114,854	-	174,354	-
Total	$ 59,500	$ (22,499)	$ 182,128	$ (16,169)	$ 241,628	$ (38,668)

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 annual differences between expected and actual experience and the changes in proportion and differences between employer contributions and proportionate share of contributions are amortized over a 1 year closed period for the Additional Plan and 8.2 years period for the MTA Defined Benefit Plan, beginning in the year in which the deferred amount occurs.

The amount of $184,514 reported as deferred outflows of resources related to pensions resulting from the Company's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year-ended December 31, 2019. Other amounts reported as deferred outflows of resources related to pensions at December 31, 2018 will be recognized as pension expense as follows:

Year Ending December 31	Additional Plan	MTA Defined Benefit Plan	Total
2019	$ 17,116	$ 1,073	$ 18,189
2020	6,655	1,073	7,728
2021	8,227	760	8,987
2022	18,829	211	19,040
2023	-	927	927
Thereafter	-	(112)	(112)
Total	$ 50,827	$ 3,932	$ 54,759

Defined Contribution Plan—Effective January 1, 2004, represented employees who were participants in the Money Purchase Plan became participants in the MTA DB Plan and have the same terms and conditions as those applicable to management employees of MTA Long Island Rail Road in the MTA DB Plan upon approval of each union's Collective Bargaining Agreement by the MTA Board. MTA Long Island Rail Road ceased contributing to the Money Purchase Plan in 2004 and the employee ceased to contribute upon approval of their union's Collective Bargaining Agreement by the MTA Board. All past Company contributions and earnings attributable to such contributions have been transferred to the MTA DB Plan to fund the pension liability for past service under the Money Purchase Plan. As of December 31, 2006, the Board of the MTA approved the Collective Bargaining Agreements for all represented employees with the last union agreement having been approved in April 2006. There are no longer active participants in the Money Purchase Plan.

The Money Purchase Plan was terminated at December 31, 2009, which has resulted in no expenses to the operations of the Long Island Rail Road, after 2009.

8. OTHER POSTEMPLOYMENT BENEFITS

The MTA Long Island Rail Road 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 and related agencies retired employees and their eligible spouses and dependents, to fund some of the OPEB provided in accordance with the MTA Long Island Rail Road'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 cost-sharing multiple-employer defined benefit OPEB plan.

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

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

Benefits Provided — The benefits provided by the OPEB Plan include medical, pharmacy, dental, vision, life insurance and a Medicare supplemental plan. The different types of benefits provided vary by agency, employee type (represented employees versus non-represented) and the relevant collective bargaining agreements. Certain benefits are provided upon retirement as defined in the applicable pension plan. Certain agencies provide benefits to certain former employees if separated from service within 5 years of attaining retirement eligibility. Employees of the MTA Long Island Rail Road are members of the following pension plans: the MTA Defined Benefit Plan and the Additional Plan.

The MTA Long Island Rail Road 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 members. NYSHIP offers a Preferred Provider Organization ("PPO") plan and several Health Maintenance Organization ("HMO") plans.

The MTA Long Island Rail Road 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 Long Island Rail Road must:

(a) have retired;

(b) be receiving a pension;

(c) have at least 10 years of credited service as a member of the MTA Defined Benefit Plan and the Additional Plan; and

(d) 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.

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.

Contributions — The MTA Long Island Rail Road is not required by law or contractual agreement to provide funding for the OPEB Plan, other than the "pay-as-you-go" ("PAYGO") amounts. PAYGO is the cost of benefits necessary to provide the current benefits to retirees and eligible beneficiaries and dependents. Employees are not required to contribute to the OPEB Plan. The OPEB Plan Board has the authority for establishing and amending the funding policy. For the year-ended December 31, 2019, the MTA Long Island Rail Road paid $86,519 of PAYGO to the OPEB Plan.

During 2012, the MTA funded $250 million into the Trust and an additional $50 million 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 in the active plans and pay the active premiums. Retirees are not paying the true cost of their benefits because they have higher utilization rates than actives and therefore are partially subsidized by the active employees. As shown in the following table, for the year ended December 31, 2018, the employer made a cash payment for retiree healthcare of $24,843 as part of the employer's payment for active-employee healthcare benefits. For purposes of GASB Statement No. 75, this payment made on behalf of the active employees should be reclassified as benefit payments for retiree health care to reflect the retirees' underlying age-adjusted, retiree benefit costs.

Blended and Age-adjusted Premium (in thousands)	**2018 Retirees**
Total blended premiums	61,676
Employment payment for retiree healthcare	24,843
Net Payments	**86,519**

(2) Net OPEB Liability

At December 31, 2019, the MTA Long Island Rail Road reported a net OPEB liability of $2,451,276 for its proportionate share of the Plan's net OPEB liability. The 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. The MTA Long Island Rail Road's proportion of the net OPEB liability was based on a projection of the MTA Long Island Rail Road's long-term share of contributions to the OPEB Plan relative to the projected contributions of all participating employers. At December 31, 2019, the MTA Long Island Rail Road's proportion was 12.52% percent.

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 are 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.

(3) 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 Long Island Rail Road 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, the measurement date. The actuarial valuations were performed using the following actuarial assumptions, applied to all periods included in the measurement, unless specified:

Valuation date	July 1, 2017
Measurement date	December 31, 2018
Discount rate	4.10%, net of expenses
Inflation	2.50%
Actuarial cost method	Entry Age Normal
Amortization method	Level percentage of payroll
Normal cost increase factor	4.50%
Investment rate of return	6.50%

Salary Scale

A. Members hired prior to January 1, 1988 - Salaries are assumed to increase 3.0% per year.

B. Managers hired on or after January 1, 1988 - Salaries are assumed to increase by years of service. Rates are shown below.

Years of Service	Rate of Increase
0	6.00%
1	5.00%
2	4.25%
3	4.00%
4+	3.50%

C. Represented Employees hired on or after January 1, 1988 – Salaries are assumed to increase by years of service. Rates are shown below:

Years of Service	Rate of Increase
0	3.25%
1	10.50%
2	10.00%
3	9.75%
4	9.25%
5	14.75%
6+	3.25%

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. The NYSHIP trend reflects actual increases in premiums to participating agencies through 2018. These assumptions are combined with long-term assumptions for dental and vision benefits of an annual trend of 4.0% plus Medicare Part B reimbursements of an annual trend of 4.5%, but not more than projected medical trends excluding any excise tax adjustments.

The valuation reflects the actuaries 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 LIRR's OPEB liability is approximately $69.5 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 (all amounts are in percentages).

	NYSHIP	
Fiscal Year	**< 65**	**>=65**
2018	8.50%	8.20%
2019	6.20%	5.50%
2020	5.80%	5.30%
2021	5.50%	5.20%
2022	7.20%	5.10%
2023	6.10%	5.10%
2024	6.10%	5.00%
2025	5.90%	5.00%
2026	5.90%	5.00%
2027	5.80%	4.90%
2037	5.60%	5.00%
2047	5.40%	5.90%
2057	5.10%	5.40%
2067	4.80%	5.00%
2077	4.20%	4.30%
2087	4.10%	4.20%
2097	4.10%	4.20%

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, and 4.3% for self-insured 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.

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.

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

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	Real Rate of Return
US Core Fixed Income	13.00%	2.03%
Global Bonds	15.00%	0.41%
Emerging Market Bonds	5.00%	3.76%
Global Equity	35.00%	5.65%
Non-US Equity	15.00%	6.44%
Global REITS	5.00%	5.80%
Hedge Funds-Muliti Strategy	12.00%	3.28%
Total	**100.00%**	
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%.

Sensitivity of the MTA Long Island Rail Road's Proportionate Share of the Net OPEB Liability to Changes in the Discount Rate — The following presents the MTA Long Island Rail Road's proportionate share of the net OPEB liability, as well as what the MTA Long Island Rail Road's proportionate share of the 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:

	1% Decrease (3.10%)	Discount Rate (4.10%)	1% Increase (5.10%)
		(in thousands)	
Proportionate share of the net OPEB liability	$ 2,804,826	$ 2,451,730	$ 2,160,617

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

	1% Decrease	Healthcare Cost Current Trend Rate *	1% Increase
		(in thousands)	
Proportionate share of the net OPEB liability	$ 2,094,299	$ 2,451,730	$ 2,901,031

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

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

For the year ended December 31, 2019, the MTA Long Island Rail Road recognized OPEB expense of $192,469, which represents its proportionate share of the Plan's OPEB expense.

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, changes in assumptions and the changes in proportion and differences between employer contributions and proportionate share of contributions are amortized over a 7.4-year close period, beginning the year in which the deferred amount occurs.

At December 31, 2019, the MTA Long Island Rail Road reported deferred outflows of resources and deferred inflows of resources related to OPEB as follows ($ in thousands):

	December 31, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 1,243	$ (2,101)
Changes in assumptions	83,265	(194,900)
Net difference between projected and actual earnings on OPEB plan investments	-	-
Changes in proportion and differences between contributions and proportionate share of contributions	2,324	(47,173)
Employer contributions to the plan subsequent to the measurement of net OPEB liability	88,645	
Total	**$ 175,477**	**$ (244,174)**

For the year ended December 31, 2019, $175,477 was reported as deferred outflows of resources related to OPEB. This amount includes both MTA Long Island Rail Road's contributions after 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:

Year ending December 31:		
2019	$	6,583
2020		6,583
2021		6,583
2022		6,287
2023		6,770
Thereafter		16,468
	$	49,274

9. ESTIMATED LIABILITY ARISING FROM INJURIES TO PERSONS

A summary of activity in estimated liability arising from injuries to persons, including employees, and damage to third-party property as of December 31, 2019 and 2018, is presented below:

	2019	2018
Balance—beginning of year	$ 129,214	$ 111,853
Activity during the year:		
Current year claims and changes in estimates	33,797	45,407
Claims paid	(18,745)	(28,046)
Balance—end of year	144,266	129,214
Less current portion	(40,588)	(35,663)
Long-term liability	$ 103,678	$ 93,551

10. LOANS PAYABLE

In December 2005, 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 with no penalty.

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

Loans Payable

Year	Principal	Interest	Total
2020	$ 3,406	$ 786	$ 4,192
2021	3,320	692	4,012
2022	3,176	599	3,775
2023	3,270	505	3,775
2024	2,215	424	2,639
2025-2044	13,345	1,703	15,048
Total	**$ 28,732**	**$ 4,709**	**$ 33,441**

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.

11. RELATED PARTY TRANSACTIONS

MTA Long Island Rail Road and other affiliated MTA agencies receive support from MTA in the form of budget, cash management, finance, legal, real estate, treasury, risk and insurance management, and other services, some of which are charged back. MTA Long Island Rail Road's subsidies from MTA for use in operations are recorded as credits to operations when received. Funds for MTA Long Island Rail Road's capital project expenditures are also provided by MTA. Funds contributed by MTA for MTA Long Island Rail Road's capital project expenditures are classified as nonoperating.

MTA Long Island Rail Road also sells joint prevalued fare cards on consignment on behalf of an affiliated agency. These amounts are reflected in the accompanying Statements of Net Position. The dollar volume of such related party transactions for the years ended December 31, 2019 and 2018, is shown in the following table:

	2019	2018
Payments to MTA and affiliated agencies	$ 172,807	$ 162,408
Payments from MTA and affiliated agencies	397,201	449,477

The resulting receivables and payables from the above transactions are recorded in the due from/to MTA and affiliated agencies account included in the accompanying Statements of Net Position.

Due from/to MTA and affiliated agencies as of December 31, 2019 and 2018, consists of:

	Receivable	(Payable)	Receivable	(Payable)
MTA	$ 166,359	$ (104,545)	$ 129,553	$ (18,996)
Affiliated agencies	259	(20,991)	377	(28,417)
Total MTA and affiliated agencies	$ 166,618	$ (125,536)	$ 129,930	$ (47,413)

12. OPERATING LEASES

MTA Long Island Rail Road leases equipment and office facilities under agreements accounted for as operating leases. Certain leases contain renewal options and escalation clauses based on the Consumer Price Index. Future minimum rental payments for all noncancelable-operating leases as of December 31, 2019, are as follows:

Years Ending December 31	
2020	$ 3,147
2021	2,664
2022	2,671
2023	2,689
2024	2,394
2025-2029	6,820
2030-2034	6,820
2035-2039	2,728
	$ 29,933

Total rent expense for the years ended December 31, 2019 and 2018, amounted to $10,949 and $7,698, respectively, and is recorded in administrative expenses.

On July 29, 1998, MTA, New York City Transit Authority ("NYCTA") and TBTA entered into a lease and related agreements whereby each agency, as sublessees, will rent an office building at 2 Broadway in lower Manhattan for an initial lease term of approximately 50 years. Through separate triple-net sublease agreements, the lease was appointed 21% to MTA, on behalf of MTA Long Island Rail Road and Metro-North Railroad ("MNR"), 68.7% to NYCTA, and 10.3% to TBTA. The lease term expires on July 29, 2048, and, pursuant to certain provisions, is renewable for two additional 15-year terms. Total annual rent payments over the initial lease term are $1.6 billion. Base building and tenant improvements at 2 Broadway are being financed through the issuance by MTA of 2 Broadway Certificates of Participation. MTA Long Island Rail Road and MNR are obligated to pay 21% of the ground lease payments and payments relating to the 2 Broadway Certificates of Participation. Pursuant to an agreement by and among MTA, MTA Long Island Rail Road, MNR, NYCTA and TBTA, NYCTA and TBTA have agreed to reimburse the MTA Long Island Rail Road and MNR for the space occupied by NYCTA and TBTA. Presently, MTA Headquarters, NYCTA and TBTA occupy substantially all the space at 2 Broadway and rent is paid directly to the landlord.

13. ENVIRONMENTAL REMEDIATION

MTA Long Island Rail Road has implemented GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*. The statement establishes standards for determining when expected pollution remediation outlays should be accrued as a liability or, if appropriate, capitalized. An operating expense and corresponding liability, measured at its current value using the expected cash flow method, have been recognized for certain pollution remediation obligations that are no longer able to be capitalized as a component of a capital project.

Pollution remediation obligations, which are estimates and subject to changes resulting from price increases or reductions, technology, or changes in applicable laws or regulations, occur when any one of the following obligating events takes place:

- An imminent threat to public health due to pollution exists.
- MTA Long Island Rail Road is in violation of a pollution prevention-related permit or license.
- MTA Long Island Rail Road is named by a regulator as a responsible or potentially responsible party to participate in remediation.
- MTA Long Island Rail Road is named or there is evidence to indicate that it will be named in a lawsuit that compels participation in remediation activities, or
- MTA Long Island Rail Road voluntarily commences or legally obligates itself to commence remediation efforts.

MTA Long Island Rail Road does not anticipate any changes in the near future that would have a material impact on the recorded obligations due to changes resulting from price increases or reductions, technology, or changes in applicable laws or regulations. In addition, MTA Long Island Rail Road does not expect any recoveries of cost that would have a material effect on the recorded obligations.

In accordance with GASB Statement No. 49, pollution remediation expenses were recorded on the Statement of Revenues, Expenses and Changes in Net Position for the years ended December 31, 2019 and 2018, respectively. The expense provision was measured at its current value utilizing the prescribed expected cash flow method.

As of December 31, the pollution remediation liability totaled $33,809 for 2019 and $28,592 for 2018, primarily consisting of future remediation activities associated with lead and asbestos abatement.

A summary of activity in estimated liability arising from environmental remediation as of December 31, 2019 and 2018 is presented below:

	2019	2018
Balance-beginning of year	$ 28,592	$ 29,218
Activity during the year:		
Current year remediation and changes in estimates	9,955	1,936
Remediation paid	(4,738)	(2,562)
Balance-end of year	33,809	28,592
Less current portion	(6,484)	(6,734)
Long-term liability	$ 27,325	$ 21,858

14. OTHER LONG-TERM LIABILITIES

MTA Long Island Rail Road has recorded $84.1 million in 2019 and $80.5 million in 2018, for the estimated long-term sick leave payout for employees and other long-term liabilities of $2.3 million in 2019 and $2.9 million in 2018. All represented employees who have worked for MTA Long Island Rail Road for 10 years and have more than half of their sick days accrued are eligible. Additionally, effective June 1, 2017, represented employees can receive a non-pensionable lump sum severance payment representing 50% of the value of all accrued but unused sick days. Management employees who have worked for MTA Long Island Rail Road for 10 years or more are paid half of their sick days with a maximum payout of 120 days.

A summary of activity in estimated liability arising from other liabilities as of December 31, 2019 and 2018 is presented below:

	2019	2018
Balance-beginning of year	$ 83,390	$ 82,089
Activity during the year:		
Current year sick leave payout and changes in estimates	7,186	6,678
Sick leave payout	(4,224)	(3,285)
Other long term liabilities	(582)	(2,092)
Balance-end of year	$ 85,770	$ 83,390

15. COMMITMENTS AND CONTINGENCIES

Management has reviewed with counsel all other actions and proceedings pending against or involving MTA Long Island Rail Road, 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 have a significant impact on MTA Long Island Rail Road's financial position, cash flows or results of operations.

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 questioned costs may occur, ultimate repayments required of the MTA or the MTA Long Island Railroad have been infrequent in prior years.

16. CURRENT KNOWN FACTS, DECISIONS OR CONDITIONS

***Labor Negotiation Update* -** Negotiation of new agreements between the MTA Long Island Rail Road and the unions covering all the MTA Long Island Rail Road's represented employees, whose contracts expired on April 16, 2019, are ongoing.

17. SUBSEQUENT EVENT

Updated Assessment of Impacts from the COVID-19 Pandemic on MTA Finances and Operations:

- ***Background Relating to the Global Coronavirus Pandemic.*** The novel coronavirus ("COVID-19") outbreak is continuing to have an adverse and severe impact on MTA's financial condition and operating results. 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 12, 2020, the World Health Organization declared the COVD-19 outbreak to be a pandemic in the face of the global spread of the virus. The COVID-19 pandemic has dramatically altered the behavior of businesses and people in a manner that is having negative effects on global and local economies. In addition, stock markets in the U.S. and globally, have seen significant declines and volatility attributed to concerns over COVID-19, and capital markets remain disrupted. These adverse impacts have intensified and continue to evolve daily globally, nationally, and particularly within the State and MTA's service area, which has become the most severely impacted region in the United States, with the most confirmed cases of infection and regrettably the most fatalities from COVID-19. On March 7, 2020 Governor Cuomo declared a Disaster Emergency in the State of New York and on March 13, 2020 President Trump declared a national state of emergency as a result of the COVID-19 pandemic. In addition, by order of Governor Cuomo ("New York State on PAUSE"), as of Sunday, March 22nd, all non-essential businesses Statewide were required to be closed, among other restrictive social distancing and related measures. These related measures, most recently, include by Governor's Executive Order, that effective at 8 p.m. on Friday, April 17, 2020 any individual who is over age two and able to medically tolerate a face-covering shall be required to cover their nose and mouth with a mask or cloth face-covering when in a public place and unable to maintain, or when not maintaining, social distance. New York State on PAUSE restrictions remain in place at least through May 15, 2020. This intervention to fight the aggressive spread of the COVID-19 pandemic has further eroded already severely diminished public transportation and bridge and tunnel usage during the duration of the COVID-19 pandemic.

- ***Currently Adopted Federal Legislative and Administrative Actions.*** The Federal government has taken several actions which are expected to provide flexibility and substantial additional funding to MTA. The Federal Transit Administration ("FTA") has given transit grantees, including MTA, the flexibility to apply certain existing grant program proceeds, previously only available for capital expenditures, to be applied for operating expenses or other purposes to address COVID-19 pandemic impacts.

  In addition, Federal emergency legislation, the "Coronavirus Aid, Relief and Economic Security Act" or "CARES Act", received final passage by Congress and was signed into law by the President on March 27, 2020. The CARES Act through FTA's formula funding provisions is expected to provide approximately $3.8 billion to MTA. Funding will be provided at a 100 percent Federal share, with no local match required, and will be 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. MTA is also eligible for FEMA payments in addition to the CARES Act funding. FEMA will cover expenses that are over and above normal costs that are related to COVID-19, such as sanitizing MTA facilities and safety at job sites to ensure COVID -19 regulations are being adhered to.

- ***Updated Assessment of 2020 Impacts of the COVID-19 Pandemic and Economic Study Analysis.*** On April 16, 2020, MTA Chairman and Chief Executive Officer Patrick J. Foye wrote to the New York State Congressional delegation, urging Congressional action to provide an additional $3.9 billion in Federal grant assistance "to stem the immediate hemorrhaging in the MTA's 2020 operating budget". Such aid would be supplemental to the approximately $3.8 billion contained in the CARES Act, and would have to be included in any upcoming new Congressional COVID-19 aid package, and is also exclusive of any capital infrastructure stimulus funding to be considered by Congress and the Administration.

  The CARES Act funding amounts for MTA derived from a conservative estimate based on the information MTA management had at the time. A clearer picture of the impact of the crisis has emerged over the last few weeks, and now with the aid of a detailed economic study led by McKinsey & Company (the "McKinsey Report"), MTA management projects the full 2020 financial impact of the COVID-19 crisis to the MTA to be between $7.0 and $8.5 billion. After the receipt of the expected $3.8 billion under the CARES Act, the net financial impact in 2020 is estimated to be between $3.2 and $4.7 billion. The $3.9 billion request is the midpoint of this range.

  Compared to 2019 results, ridership has now declined 93 percent on the subways, 95 percent on MTA Metro-North Railroad, and 97 percent on the Long Island Rail Road, with equally reduced ridership on buses. Crossings at MTA Bridges and Tunnels facilities are down by an estimated 62% from 2019 figures. Based on the current ridership and reasonable forecasts of a slow return to higher (but not pre-COVID-19 pandemic) levels in 2020, MTA, based upon projections in the McKinsey Report, expects to see combined losses in fare and toll revenues of between $4.7 and

$5.9 billion in 2020, and additional impacts in 2021. Projections for 2021 are of necessity more speculative at this time and were beyond the scope of the McKinsey Report.

Moreover, the McKinsey Report, based upon limited available data, forecasts losses of between $1.6 and $1.8 billion in State and local taxes dedicated to MTA in 2020 as a result of the extraordinary economic downturn facing the region and nation.

Finally, MTA is also incurring additional expenses related to ensuring the safety of employees and riders, by disinfecting stations, rolling stock and work spaces to a new, even more costly level. The McKinsey Report estimates these incremental operational expenses for 2020 to be between $700 and $800 million (inclusive of a portion of the $300 million COVID-19 annualized costs estimate referred to in the March 25th Supplement). The dedication of MTA workers has come at the highest cost in illness and loss of life. Sixty-eight MTA employees have tragically passed away due to COVID-19. MTA New York City Transit alone has more than 2,400 subway and bus employees who have tested positive for COVID-19. Another 4,400 are on home quarantine and thousands more are calling out sick. MTA does not expect those overhead costs to decline, but instead to increase as ridership returns.

The McKinsey Report provided an estimate of the shortfalls discussed below through the end of calendar year 2020, ranging between $3.2 and $4.7 billion after accounting for the $3.8 billion the MTA is expected to receive through the CARES Act.

By way of background to the McKinsey Report forecasts, on March 17, 2020, five days before the stay-at-home order went into effect for New York State, MTA projected that it would face a 2020 budget shortfall of at least $4 billion in fare and toll revenues, based upon then current ridership and bridge and tunnel crossings declines. This estimate explicitly did not take into account the impact of the COVID-19 pandemic on taxes and other dedicated revenue streams that support MTA's operations. Approximately, one month later, it is now clear that the COVID-19 pandemic is more severe and of longer duration than had been anticipated. The impact to MTA's finances is material and leaves a gap that must be filled in order to sustain normal operations. MTA has begun refining the fare and toll revenue loss projections to reflect these changes, as well as projecting losses in the tax and other subsidy revenues that generally make up approximately one-half of MTA's total revenue sources. McKinsey & Company was contracted by MTA to analyze the potential impact of the COVID-19 pandemic on MTA's 2020 calendar year revenues.

As noted above, this analysis did not attempt to capture the impact of the COVID-19 pandemic on MTA finances in 2021. A view of 2021 will need to be developed when the key factors that influence it; the course of the virus, public health responses, including social isolation measures, and the trajectory of the economic recovery, can be seen with greater clarity. The McKinsey Report focused on operating costs and did not make any assumptions related to additional capital expenditures that MTA may incur over the course of the COVID-19 pandemic. It is limited to giving an initial view of additional operating costs.

In general, the McKinsey Report reviewed two scenarios for how revenues may be affected in the full calendar year 2020. The scenarios developed reflected different assumptions for how transit and commuter rail ridership and bridge and tunnel traffic will behave across several variables. The report further analyzed MTA's dedicated revenue streams and the impact of the COVID-19 pandemic on the variety of economic activity that generates much of the dedicated tax component of this revenue stream. The estimated incremental negative revenue impacts on MTA, after accounting for the CARES Act assistance of $3.8 billion, ranged from $3.2 billion to

$4.7 billion. The midpoint between these two scenarios, $3.9 billion, was selected as the basis of MTA's April 16th request to Congress.

There is substantial risk that the higher end of the range could materialize based on uncertainties in the course of the COVID-19 pandemic, the speed of development and mass promulgation of high-volume clinical testing and protocols, the availability of medical supplies and equipment, continued public adherence to protective policies, and Federal policy response.

- ***MTA Liquidity Resources***. MTA currently has liquidity resources, consisting of a current running cash balance, internal available flexible funds, OPEB resources and commercial bank lines of credit totaling $1.201 billion ($1.0 billion of which has been drawn). *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.*

  Longer-term resource options to address the COVID-19 pandemic impacts, may include, but are not limited to, (i) approximately $4 billion in federal emergency transit grants pursuant to the CARES Act, (ii) replacing programmed pay-as-you-go capital funds with long term bonding, (iii) various debt restructuring options generating potential resources depending upon market conditions and other matters, and (iv) applying new, federal FTA grant flexibility rules to use in the current federal fiscal year for operating relief in the emergency. The MTA Board on March 25, 2020 authorized MTA to secure an additional $2 billion in commercial bank lines of credit market conditions permitting. Also, see the additional significant financial assistance and flexibility provided in the State's FY 2020-21 Enacted Budget. There can be no assurance that MTA will be successful in securing additional lines of credit.

  As noted above, exercising these options would come at a cost, including increased longer-term borrowing and potential adverse impacts on the timing of MTA initiatives to improve its systems. The loss of farebox and toll revenues, potential declines in State and local, as well as reprogramming of available federal and possibly State generated funding support for capital purposes, to urgent financial needs, will result in delays and shortfalls in implementing Capital Plan projects. The full impact of the COVID-19 pandemic on Capital Plan implementation cannot be determined at this time.

  Finally, as is provided in the February Plan, MTA relies in State and local subsidies and dedicated taxes. The financial stress which MTA is experiencing as a result of the COVID-19 pandemic is being similarly felt at all levels of the government and in the social and financial lives of MTA patrons and State and local residents. This can be expected to have a substantial adverse impact on State and local revenues, on dedicated tax collections, and thus on the capacity of the State and local governments to maintain or raise the level of financial support to MTA during this crisis.

- ***NY Essential Service Plan.*** On March 24, 2020, MTA management announced the implementation of the "NY Essential Service Plan ("Service Plan")." The Service Plan is designed to ensure healthcare workers, first responders and essential personnel are able to get to and from work by public transportation. MTA New York City Transit, MTA Long Island Rail Road and MTA Metro-North Railroad have implemented temporary reduced service schedules.

The Service Plan includes the following specific measures:

- **Subways and Buses:** On the subways, beginning March 25, 2020, service reductions were implemented. The service changes preserve MTA New York City Transit's a.m. and p.m. peak service to get first responders and essential personnel to their destinations. Some lines will not run Monday through Friday, including the B, W and Z lines, which will be covered by other local service. Some express services and branches on some lines will operate only local service. MTA New York City Transit will continue to undertake a line-by-line, hour-by-hour analysis of ridership, retaining flexibility to increase service as necessary.

    – The Service Plan for buses started on March 26, 2020. The plan retains 75 percent of normal bus service, allows the MTA to serve essential workers and reduce crowding on transit and in crew facilities. Customers who still need to use buses for essential activities will continue to be accommodated. At the same time, the maximum number of buses needed will be substantially reduced, requiring fewer operators and lessening crowding of depot facilities.

- **Long Island Rail Road and Metro-North**: MTA Long Island Rail Road will have over 500 weekday trains running, compared to a normal weekday of over 740 trains, beginning March 27, 2020. MTA Long Island Rail Road will also have crews and equipment on standby to supplement service if necessary.

    Beginning on March 27, 2020, MTA Metro-North Railroad will provide hourly service on the Harlem, Hudson and New Haven lines, with extra trains added during peak times. Normal weekday capacity will be reduced by approximately 50 percent when compared to a normal weekday. The reduced schedule will run 424 trains, down from 713 during a normal schedule.

    Beginning the weekend of April 4/April 5, MTA Metro-North Railroad will provide hourly service while also suspending shuttle service between Wassaic and Southeast on the Upper Harlem line.

- **Paratransit:** The paratransit program has eliminated shared rides, in accordance with the recommended public health guidance, and extended eligibility for existing Access-A-Ride customers. The paratransit system continues to have capacity to serve demand.

All of the foregoing service changes are described on MTA website, the MYmta app and on countdown clocks in stations and on platforms.

The schedule changes follow the Governor's "New York State on PAUSE" order, which directed New Yorkers use of public transportation for only essential travel and attempts to limit potential exposure by spacing out riders by six feet. MTA New York City Transit, MTA Bus Company, MTA Long Island Rail Road and MTA Metro-North Railroad continue their aggressive disinfecting procedures at each of its stations twice daily, and continue daily sanitization of its fleet of rolling stock with the full fleet of train cars and buses disinfected every 72 hours or less. The Access-A-Ride dedicated fleet is disinfected daily. Surfaces frequently used by customers in stations, such as turnstiles, MetroCard and ticket vending machines, and handrails, will be disinfected twice daily with EPA-approved and National Centers for Disease Control-endorsed disinfectants.

MTA is employing its pandemic plan, which is updated regularly, and serves as a blueprint guiding the MTA's response in accordance with Federal, State and local authorities. Through the end of March, MTA has distributed the following resources to operating employees: masks, gloves to those whose jobs require it, bottles of hand sanitizer, gallons of cleaning supplies and boxes of sanitizing wipes. Additionally, MTA continues to replenish and maintain a stockpile of these essential items so that MTA can continue to distribute them as needed. In addition, to these actions, MTA has taken a number of aggressive steps to ensure worker safety, including reducing the number of crews that need to report to work, implementing rear-door boarding to ensure social distance for bus operators, eliminating cash transactions and, as detailed above, disinfecting workplaces, trains, business and all rolling stock, among other actions. MTA is also working closely with the National Centers for Disease Control, the State Department of Health, and other government agencies during this time.

- ***Capital Plan Procurement and Construction Contract Delays***. MTA Construction and Development Company ("MTACDC") is currently evaluating the impacts of the COVID-19 pandemic on MTA's Capital Plans. MTACDC expects to reassess a path forward for implementation of the Capital Plans in the face of the COVID-19 pandemic in 60 days. In the meantime, MTACDC will cease the award of new Capital Plan construction or consulting contracts and, with few exceptions, MTACDC is, effective April 1, 2020, suspending action on open solicitations for all such contracts. With limited exceptions, the dates for submission of bids, requests for qualification and requests for proposals for open solicitations for MTACDC, or for any other capital budget-funded MTA projects, will be adjourned until further notice. Similarly, currently scheduled qualification hearings and pre-bid conferences have been cancelled and will be rescheduled as appropriate. The full impact of the COVID-19 pandemic on Capital Plan implementation cannot be determined at this time.

- ***New York State Fiscal Year 2020-21 Budget Provisions of Importance to MTA.*** Several provisions in the State's fiscal year 2020-21 budget (as passed by both the State Assembly and State Senate and signed by the Governor on April 3, 2020 the "State FY 2020-21 Enacted Budget"), are intended to provide significant financial assistance and flexibility to aid MTA in addressing the adverse impacts caused by the COVID-19 pandemic. Among the provisions in the State FY 2020-21 Enacted Budget addressing MTA's needs are the following:

  (i) amends existing law to allow MTA to use monies in the Central Business District Tolling Lockbox Fund (the "CBD Tolling Lockbox Fund") for two years (2020 and 2021) to offset decreases in revenue (i.e. lost taxes, fees, charges, fares and tolls) or increases in operating costs due in whole or in part to the State emergency disaster caused by the COVID-19 pandemic. The CBD Tolling Lockbox Fund currently includes Internet sales tax revenue and mansion tax revenue that will be used for operations. In the future, CBD tolling revenue will be added when that program is up and running, although CBD tolling revenue may be restricted under Federal law to capital expenses. All revenues deposited in such fund were under prior law only available for capital costs of MTA's 2020-24 Capital Plan and successor capital plans, and costs of the Central Business District tolling program. This provision also provides that if MTA receives funds/reimbursements from Federal government or insurance due to the COVID-19 pandemic, MTA must repay the CBD Tolling Lockbox Fund, but only after it has first fully repaid any COVID-19 pandemic related public or private borrowings, draws on lines of credit; issuances of revenue anticipation notes, internal loans; or use of corpus of MTA's OPEB trust;

  (ii) amends existing law to increase MTA's bond cap from $55.497 billion to $90.1 billion through 2024;

(iii) creates new authorization for MTA to issue up to $10 billion of bonds for three years (2020-2022) to offset decreases in revenue (i.e. lost taxes, fees, charges, fares and tolls) or increases in operating costs of the MTA and its Related Entities due in whole or in part to the State disaster emergency caused by the COVID-19 pandemic;

(iv) commits the State and the City to each pay $3 billion to fund capital costs of the MTA's 2020-2024 Capital Plan. Additionally,

- State's Director of the Budget will determine schedule for the City's payments of its $3 billion share to MTA,
- if the City does not pay in full any of its scheduled payments, the Director of the Budget shall require the State Comptroller to intercept aid to localities appropriations to the City, or any other revenue source of the City, including sales and use tax, in an amount equal to the City's unpaid balance and deposit it into a newly established State-held fund, the MTA Capital Assistance Fund, and
- the State Comptroller must pay monies deposited in the MTA Capital Assistance Fund to MTA without appropriation, and

(v) requires the City, beginning on July 1, 2020, to pay one-half of the MTA's net paratransit operating expenses for four years: 2020, 2021, 2022, and 2023, and provides a statutory mechanism to intercept funds otherwise available to the City to insure payment of the City's share, if necessary. The City's contribution for each of those years is capped in the law as follows: 2020: $215 million; 2021: $277 million; 2022: $290 million; and 2023: $310 million

- ***Dedication of 341-7 Madison Avenue Redevelopment Proceeds to MTA Capital Program.*** MTA and the City of New York announced on April 2, 2020, an agreement on a site-specific value capture strategy to speed development of 341-7 Madison Avenue, the site of the MTA's former headquarters in midtown Manhattan. Real estate taxes and other revenue generated from the future ground lease for the redevelopment of the property will be dedicated to the MTA capital program. The redevelopment plan is projected to generate more than $1 billion over the life of the ground lease to fund approved MTA New York City Transit projects. The agreement is part of the City of New York's commitment to provide $600 million from alternative non-tax-levy revenue sources as part of its $2.66 billion contribution to MTA's 2015-2019 Capital Plan.

- ***COVID-19 Family Benefits Agreement***. On April 14, 2020, the MTA, Transport Workers Union Local 100 (TWU), the International Association of Sheet Metal, Air, Rail and Transportation Workers (SMART), and International Brotherhood of Teamsters Local 808 (IBT) reached an agreement on COVID-19 family benefits for transportation workers tragically lost in the pandemic. The benefits include a payment of $500,000 from the MTA to the surviving family of any worker who lost their life as a result of COVID-19, in addition to providing health insurance to the spouse and dependents to the age of 26 of the surviving family for three years. The MTA continues to have ongoing discussions with all labor partners to extend the COVID-19 family benefits agreement to all members of its represented workforce. The agreement will also be extended to all non-represented employees. The agreement is subject to Board ratification on April 22, 2020.

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REQUIRED SUPPLEMENTAL INFORMATION (UNAUDITED)

MTA LONG ISLAND RAIL ROAD
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF CHANGES IN THE MTA LONG ISLAND RAIL ROAD'S NET PENSION LIABILITY AND RELATED RATIOS FOR THE LONG ISLAND RAIL ROAD COMPANY PLAN FOR ADDITIONAL PENSIONS AT DECEMBER 31
(In thousands, except percentages)

	2018	2017	2016	2015	2014
TOTAL PENSION LIABILITY:					
Service cost	$ 1,057	$ 1,874	$ 2,752	$ 3,441	$ 3,813
Interest	97,612	101,477	104,093	106,987	110,036
Differences between expected and actual experience	213	1,890	15,801	6,735	-
Benefit payments and withdrawals	(159,565)	(159,717)	(158,593)	(157,071)	(156,974)
Net change in total pension liability	(60,683)	(54,476)	(35,947)	(39,908)	(43,125)
TOTAL PENSION LIABILITY—Beginning	1,471,828	1,526,304	1,562,251	1,602,159	1,645,284
TOTAL PENSION LIABILITY—Ending(a)	1,411,145	1,471,828	1,526,304	1,562,251	1,602,159
FIDUCIARY NET POSITION:					
Employer contributions	59,500	76,523	81,100	100,000	407,513
Non-Employer contributions	-	145,000	70,000	-	-
Member contributions	334	760	884	1,108	1,304
Net investment income	63,047	112,614	58,239	527	21,231
Investment gains/(losses)	(94,144)	-	-	-	-
Benefit payments and withdrawals	(159,565)	(159,717)	(158,593)	(157,071)	(156,974)
Administrative expenses	(1,180)	(1,070)	(611)	(1,218)	(975)
Net change in plan fiduciary net position	(132,008)	174,110	51,019	(56,654)	272,099
PLAN FIDUCIARY NET POSITION—Beginning	951,327	777,217	726,198	782,852	510,753
PLAN FIDUCIARY NET POSITION—Ending(b)	819,319	951,327	777,217	726,198	782,852
EMPLOYER'S NET PENSION LIABILITY—Ending(a)-(b)	$ 591,826	$ 520,501	$ 749,087	$ 836,053	$ 819,307
PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY	58.06 %	64.64 %	50.92 %	46.48 %	48.86 %
COVERED—EMPLOYEE PAYROLL	$ 13,169	$ 20,500	$ 29,312	$ 39,697	$ 43,267
EMPLOYER'S NET PENSION LIABILITY AS A PERCENTAGE OF COVERED-EMPLOYEE PAYROLL	4,494.19 %	2,539.07 %	2,555.56 %	2,106.09 %	1,893.61 %

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available, in accordance with GASB Statement No. 68. Information was not readily available for periods prior to 2014.

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MTA LONG ISLAND RAIL ROAD
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF THE MTA LONG ISLAND RAIL ROAD'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY IN THE MTA DEFINED BENEFIT PENSION PLAN AT DECEMBER 31
(In thousands, except percentages)

	2018	2017	2016	2015	2014
MTA Long Island Railroad's proportion of the net pension liability	33.176 %	35.402 %	33.186 %	35.250 %	34.970 %
MTA Long Island Railroad's proportionate share of the net pension liability	$ 485,697	$ 361,550	$ 455,330	$ 456,653	$ 361,771
MTA Long Island Railroad's actual covered-employee payroll	$ 885,247	$ 794,719	$ 741,461	$ 718,326	$ 720,069
MTA Long Island Railroad's proportionate share of the net pension liability as a percentage of the Authority's covered-employee payroll	54.866 %	45.494 %	61.410 %	63.572 %	50.241 %
Plan fiduciary net position as a percentage of the total pension liability	73.326 %	79.868 %	71.820 %	70.440 %	74.770 %

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available, in accordance with GASB Statement No. 68. Information was not readily available for periods prior to 2014.

MTA LONG ISLAND RAIL ROAD
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF MTA LONG ISLAND RAIL ROAD'S CONTRIBUTIONS TO ALL PENSION PLANS FOR THE YEARS ENDED DECEMBER 31
(In whole dollars, except percentages)

	2019	2018	2017	2016	2015	2014
Additional Plan						
Actuarially determined contribution	$ 62,773,550	$ 59,195,693	$ 76,523,056	$ 83,182,872	$ 82,381,698	$ 112,512,532
Actual employer contribution	62,773,550	59,500,000	76,523,056	81,100,000	100,000,000	407,512,532
Contribution deficiency (excess)	$ -	$ (304,307)	$ -	$ 2,082,872	$ (17,618,302)	$ (295,000,000)
Covered payroll	$	$ 13,168,691	$ 20,499,671	$ 29,311,816	$ 39,696,819	$ 43,266,565
Contributions as a % of Covered payroll	%	451.83 %	373.29 %	276.68 %	251.91 %	941.86 %
MTA Defined Benefit Pension Plan						
Actuarially determined contribution	$ 121,739,928	$ 114,854,414	$ 109,304,403	$ 101,964,855	$ 96,400,000	$ 94,951,686
Actual employer contribution	121,739,928	114,854,414	111,459,116	99,800,000	68,500,000	123,849,954
Contribution deficiency (excess)	$ -	$ -	$ (2,154,713)	$ 2,164,855	$ 27,900,000	$ (28,898,268)
Covered payroll	$	$ 885,247,422	$ 794,718,795	$ 741,460,982	$ 718,325,512	$ 720,069,352
Contributions as a % of Covered payroll	%	12.97 %	14.02 %	13.46 %	9.54 %	17.20 %

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available, in accordance with GASB Statement No. 68. Information was not readily available for periods prior to 2014.

MTA LONG ISLAND RAIL ROAD
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
NOTES TO SCHEDULE OF LONG ISLAND RAIL ROAD'S CONTRIBUTIONS TO ALL PENSION PLANS

The following actuarial methods and assumptions were used in the January 1, 2018 funding valuation for the Single-Employer pension plan as follows:

	Additional Plan
Valuation dates	January 1, 2018
Measurement date	December 31, 2018
Actuarial cost method	Entry Age Normal Cost
Amortization method	Period specified in current valuation report (closed 15 year period beginning January 1, 2018) with level dollar payments
Asset valuation method	The asset valuation method determines the actuarial value of assets, which is used in the development of the employer contribution. The asset valuation method recognizes gains and losses over a 5-year period at a rate of 20% per year and cannot produce a value that is lower than 80% or higher than 120% of market value. As of January 1, 2018, the actuarial value of assets is 97.6% of market value.
Actuarial assumptions:	
Overtime/Unused vacation pay	Earnings in each year are increased by 65% for represented employees to account for overtime and by 20% in the year prior to assumed retirement and by 10% in the year prior to termination (other than retirement) for non-represented employees to account for unused vacation pay.
Interest	7.0% per annum, compounded annually, net of investment expenses.
Mortality	Preretirement and postretirement 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.
Inflation/Railroad Retirement Wage Base	2.50%; 3.50%
Salary increases	3.00%
Cost-of-living adjustments	N/A

Notes to Schedule of MTA Long Island Rail Road's Contributions Pension Plan:

Significant methods and assumptions used in calculating the actuarially determined contributions of an employer's proportionate share in a Cost Sharing, Multiple-Employer pension plan, the MTA Defined Benefit Plan, should be 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 changes of benefit terms in the January 1, 2018 funding valuation.

Changes of Assumptions—There were no changes since the prior valuation.

MTA LONG ISLAND RAIL ROAD
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF THE MTA LONG ISLAND RAIL ROAD'S PROPORTIONATE SHARE OF THE NET OPEB LIABILITY IN THE MTA OPEB PLAN AT:
(In thousands)

Plan Measurement Date (December 31):		**2018**
MTA Long Island Rail Road's proportion of the net OPEB liability		12.520%
MTA Long Island Rail Road's proportionate share of the net OPEB liability	$	2,451,276
MTA Long Island Rail Road's covered payroll	$	645,382
MTA Long Island Rail Road's proportionate share of the net OPEB liability as a percentage of its covered payroll		379.82%
Plan fiduciary net position as a percentage of the total OPEB liability		1.76%

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.

MTA LONG ISLAND RAIL ROAD
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF THE MTA LONG ISLAND RAIL ROAD'S CONTRIBUTIONS TO THE MTA OPEB PLAN AND NOTES TO THE SCHEDULE OF THE MTA LONG ISLAND RAIL ROAD'S CONTRIBUTIONS TO THE MTA OPEB PLAN FOR THE YEARS ENDED DECEMBER 31:
(In thousands)

	2019	2018
Actuarially Determined Contribution	N/A	N/A
Actual Employer Contribution [1]	$ 86,519	$ 90,613
Contribution Deficiency (Excess)	N/A	N/A
Covered Payroll	645,382	911,672
Actual Contribution as a Percentage of Covered Payroll	13.41%	9.94%

(1) Actual employer contribution includes the implicit rate of subsidy adjustment of $24,843 and $23,608 for the year ended December 31, 2019 and 2018, respectively.

Notes to Schedule of the MTA Long Island Rail Road's Contribution to the OPEB Plan:

Methods and assumptions used to determine contribution rates:

Valuation date	July 1, 2017
Measurement date	December 31, 2018
Discount rate	4.10%, net of expenses
Inflation	2.50%
Actuarial cost method	Entry Age Normal
Amortization method	Level percentage of payroll
Normal cost increase factor	4.50%
Investment rate of return	6.50%

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

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

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

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MTA Bus Company

(Component Unit of the Metropolitan Transportation Authority)

Financial Statements as of and for the
Years Ended December 31, 2019 and 2018,
Required Supplementary Information, and
Independent Auditors' Report

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MTA BUS COMPANY
(Component Unit of the Metropolitan Transportation Authority)

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INDEPENDENT AUDITORS' REPORT

To the Members of the Board of
Metropolitan Transportation
Authority

Report on the Financial Statements

We have audited the accompanying statements of net position of the MTA Bus Company ("MTA Bus"), a component unit of the Metropolitan Transportation Authority ("MTA"), as of December 31, 2019 and 2018, and the related statements of revenues, expenses, and changes in net position, and cash flows for the years then ended, and the related notes to the financial statements, which collectively comprise MTA Bus's financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the net position of MTA Bus as of December 31, 2019 and 2018, and the respective changes in net position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matters

As discussed in Note 1 to the financial statements, MTA Bus is a component unit of MTA. The MTA is a component unit of the State of New York. MTA Bus requires significant subsidies from The City of New York and has material transactions with the MTA. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information.

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

May XX, 2020

OVERVIEW OF THE FINANCIAL STATEMENTS

***Introduction* —** The following is a narrative overview and analysis of the financial activities of MTA Bus Company ("MTA Bus" or the "Company") — Component Unit of the Metropolitan Transportation Authority for the years ended December 31, 2019 and 2018. It is intended to serve as an introduction to MTA Bus's financial statements, which have the following Components: (1) Management's Discussion and Analysis ("MD&A"), (2) Financial Statements, (3) Notes to Financial Statements, and (4) Required Supplementary Information.

Management's Discussion and Analysis — The MD&A provides an assessment of how MTA Bus's position has improved or deteriorated and identifies the factors that, in management's view, significantly affected MTA Bus's overall financial position. It may contain opinions, assumptions or conclusions by MTA Bus's management that should not be considered a replacement for, and must be read in conjunction with the financial statements described below.

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

The Statements of Revenues, Expenses and Changes in Net Assets, show how MTA Bus's net position changed during the year. It accounts for all of the current year's revenues and expenses, measures the financial results of MTA Bus's operations over the past year and can be used to determine how MTA Bus has funded its costs.

The Statements of Cash Flows, provide information about MTA Bus's cash receipts, cash payments, and net changes in cash resulting from operations, non-capital financing, capital and related financing and investing activities.

***Notes to Financial Statements* —** The Notes to Financial Statements provide information that is essential to understanding the basic financial statements, such as MTA Bus's accounting methods and policies, details of cash and investments, capital assets, employee benefits, lease transactions and future commitments and contingencies of MTA Bus. Any other events or developing situations that could materially affect MTA Bus's financial position, results of operations and cash flows.

Required Supplementary Information (Unaudited): The Required Supplementary Information provides information concerning MTA Bus's progress in funding its obligation to provide Other Postemployment benefits to its employees.

FINANCIAL REPORTING ENTITY

MTA Bus is a public benefit corporation established pursuant to the New York State Public Authorities Law, to operate local and express bus service within The City of New York ("The City"). MTA Bus is a Component Unit of the Metropolitan Transportation Authority, which is a Component Unit of the State of New York and 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.

CONDENSED FINANCIAL INFORMATION

The following sections will discuss the changes in MTA Bus's financial position for the years ended December 31, 2019 and 2018. The changes from year to year are due to, among other things, the continuing purchase of new buses. It should be noted that for purposes of MD&A, summaries of the financial statements and tables presented conform to MTA Bus's financial statements, which are presented in accordance with accounting principles generally accepted in the United States of America.

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

	2019	2018 (In thousands)	2017	Increase (Decrease) 2019-2018	Increase (Decrease) 2018-2017
Gross Capital Assets	$ 971,604	$ 897,746	$ 856,923	$ 73,858	$ 40,823
Accumulated Depreciation	(602,731)	(558,140)	(510,652)	(44,591)	(47,488)
Net Capital Assets	368,873	339,606	346,271	29,267	(6,665)
Other Assets	111,047	187,258	146,959	(76,211)	40,299
Total Assets	479,920	526,864	493,230	(46,944)	33,634
Deferred outflows of resources	182,588	132,421	102,998	50,167	29,423
Total Assets and Deferred Outflows of Resources	$ 662,508	$ 659,285	$ 596,228	$ 3,223	$ 63,057

Significant Changes in Assets Includes:

December 31, 2019 versus 2018

MTA Bus's Gross Capital Assets amounted to $971.6 million and $897.7 million as of December 31, 2019 and 2018, respectively. Of the December 31, 2019 total, buses accounted for 68.4%, facilities and yards, data processing equipment and other were 5.0%, service vehicles were 0.3%, assets under construction consisting of buses and facility upgrades were 3.1%, and capital non bus were 23.2%.

Net Capital Assets increased from December 31, 2018 by $29.3 million or 8.6%. The net increase is due to additions to fixed assets of $73.9 million less depreciation of $44.6 million. The additions and transfers included $66.5 million to assets under construction for the Baisley Park, Spring Creek, JFK, Far Rockaway, College Point and LaGuardia depot renovations and upgrades, and $7.3 million for data processing equipment.

Other Assets decreased by $76.2 million or 40.7% compared with the prior year. This is due to a decrease in subsidy receivable from New York City of $105.1 million, offset by an increase in cash of $0.9 million, an increase in other receivables of $26.1 million, and an increase in prepaid expenses and materials and supplies of $1.9 million.

MTA Bus is reporting deferred outflows of resources related to pension liabilities of $130.9 million at December 31, 2019. See Note 6 to the financial statements for more information regarding MTA Bus's pensions.

MTA Bus is reporting deferred outflows of resources related to OPEB liabilities of $51.7 million at December 31, 2019. See Note 7 to the financial statements for more information regarding MTA Bus's other post-employment benefits.

December 31, 2018 versus 2017

MTA Bus's Gross Capital Assets amounted to $897.7 million and $856.9 million as of December 31, 2018 and 2017, respectively. Of the December 31, 2018 total, buses accounted for 70.3%, facilities and yards, data processing equipment and other were 4.3%, service vehicles were 0.4%, assets under construction consisting of buses and facility upgrades were 5.3%, and capital non bus were 19.7%.

Net Capital Assets decreased from December 31, 2017 by $6.7 million or 1.9%. The net decrease is due to additions to fixed assets of $40.8 million less depreciation of $47.5 million. The additions and transfers included $35.4 million to assets under construction for the Baisley Park, Spring Creek, Far Rockaway, JFK and LaGuardia depot renovations and upgrades, $0.1 million for acquisition of service vehicles, and $5.3 million for data processing equipment.

Other Assets increased by $40.3 million or 27.4% compared with the prior year. This increase is due to an increase in subsidy receivable from New York City of $53.4 million, offset by a decrease in other receivables of $11.5 million, and a decrease in prepaid expenses and materials and supplies of $1.6 million.

MTA Bus is reporting deferred outflows of resources related to pension liabilities of $82.1 million at December 31, 2018. See Note 6 to the financial statements for more information regarding MTA Bus's pensions.

As a result of adopting GASB Statements No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, MTA Bus is reporting deferred outflows of resources related to OPEB liabilities of $50.4 million at December 31, 2018. See Note 7 to the financial statements for more information regarding MTA Bus's other post-employment benefits.

Total Liabilities, Distinguishing Between Noncurrent Liabilities and Current Liabilities and Deferred Inflows of Resources

				Increase (Decrease)	
	2019	**2018**	**2017**	**2019-2018**	**2018-2017**
		(In thousands)			
Current Liability	$ 208,033	$ 297,811	$ 276,800	$ (89,778)	$ 21,011
Noncurrent Liabilty	1,295,022	1,187,219	1,345,737	107,803	(158,518)
Total Liabilities	1,503,055	1,485,030	1,622,537	18,025	(137,507)
Deferred Inflows of Resources	128,909	81,895	13,080	47,014	68,815
Total liabilities and deferred inflows of resources	$ 1,631,964	$ 1,566,925	$ 1,635,617	$ 65,039	$ (68,692)

Significant Changes in Liabilities Includes:

December 31, 2019 versus 2018

At the end of 2019, MTA Bus's liabilities consisted primarily of post-employment benefits, 42.2%, amounts due to New York City Transit Authority ("NYCTA") and the MTA for intercompany transactions, 3.5%, injuries to persons (workers compensation and public liability), 27.2%, and accrued retirement, 20.1%.

Total Liabilities increased from December 31, 2018 to December 31, 2019 by $18.0 million or 1.2%. Current Liabilities decreased $89.8 million or 30.1%, while Noncurrent Liabilities increased by $107.8 million or 9.1%.

The decrease in Current Liabilities was due primarily to a decrease in accounts payable of $5.2 million, an increase in accrued expenses of $12.7 million, and a decrease in due to MTA and affiliated agencies of $97.3 million, as a result of timely subsidy receipts.

The increase in Noncurrent Liabilities was due to an increase in liabilities from injuries to persons of $33.9 million, an increase in accrued retirement of $135.2 million, and an increase in pollution remediation of $0.7 million. These increases were offset by a decrease in post-employment benefits other than pensions of $62.0 million.

MTA Bus is reporting deferred inflows of resources related to pension liabilities of $46.6 million at December 31, 2019. See Note 6 to the financial statements for more information regarding MTA Bus's pensions.

MTA Bus is reporting deferred inflows of resources related to OPEB liabilities of $82.3 million at December 31, 2019. See Note 7 to the financial statements for more information regarding MTA Bus's post-employment benefits.

December 31, 2018 versus 2017

At the end of 2018, MTA Bus's liabilities consisted primarily of post-employment benefits, 46.8%, amounts due to New York City Transit Authority ("NYCTA") and the MTA for intercompany transactions, including MTA investment pool borrowings, 10.1%, injuries to persons (workers compensation and public liability), 24.8%, and accrued retirement, 11.2%.

Total Liabilities decreased from December 31, 2017 to December 31, 2018 by $137.5 million or 8.5%. Current Liabilities increased $21.0 million or 7.6%, while Noncurrent Liabilities decreased by $158.5 million or 11.8%.

The increase in Current Liabilities was due primarily to an increase in accounts payable of $2.6 million and due to MTA and affiliated agencies of $32.4 million, resulting from delays in subsidy receipts. These increases were offset by a decrease in accrued expenses of $14.0 million, due to union contract settlements.

The decrease in Noncurrent Liabilities was due to a decrease in post-employment benefits other than pensions of $84.4 million, a decrease in accrued retirement of $103.1 million, a decrease in NYCTA/MTA intercompany capital loans of $11.0 million, and a decrease in pollution remediation of $0.2 million. These decreases were offset by an increase in liabilities from injuries to persons of $40.2 million.

MTA Bus is reporting deferred inflows of resources related to pension liabilities of $81.2 million at December 31, 2018. See Note 6 to the financial statements for more information regarding MTA Bus's pensions.

As a result of adopting GASB Statement No. 75, MTA Bus is reporting deferred inflows of resources related to OPEB liabilities of $0.7 million at December 31, 2018. See Note 7 to the financial statements for more information regarding MTA Bus's post-employment benefits.

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

				Increase (Decrease)	
	2019	2018	2017	2019-2018	2018-2017
		(In thousands)			
Capital Assets, net of accumulated depreciation	$ 368,873	$ 339,606	$ 346,271	$ 29,267	$ (6,665)
Less: Intercompany capital loans	-	-	(11,031)	-	11,031
Net Investment in Capital Assets	368,873	339,606	335,240	29,267	4,366
Unrestricted (deficit)	(1,338,329)	(1,247,246)	(1,374,629)	(91,083)	127,383
Total Net Position	$ (969,456)	$ (907,640)	$ (1,039,389)	$ (61,816)	$ 131,749

Net position represents the residual interest in MTA Bus's assets after liabilities are deducted and consist of two Component Units: net investment in capital assets, and unrestricted. Net investment in capital assets, include capital assets, net of accumulated depreciation and outstanding principal balances of debt attributable to the acquisition, construction or improvement of those assets. All other net position are unrestricted.

***Significant Changes in Net Position includes*:**

<u>December 31, 2019 versus 2018</u>

Total net position was ($969.5) million at the end of 2019, a net decrease of $61.8 million from the end of 2018. The net decrease was comprised of capital contributions of $58.3 million, net non-operating income of $588.3 million, offset by operating losses ($708.4) million.

<u>December 31, 2018 versus 2017</u>

Total net position was ($907.6) million at the end of 2018, a net increase of $131.7 million from the end of 2017. The net increase was comprised of capital contributions of $26.7 million, net non-operating income of $551.5 million, offset by operating losses ($621.8) million, and restatement of beginning of net position of $175.3 million, mainly due to the effect of adopting GASB 75.

Condensed Statements of Revenues, Expenses and Changes in Net Position

	Year Ended December 31,		
	2019	2018	2017
	(In thousands)		
Operating revenues	$ 242,058	$ 239,593	$ 236,998
Operating expenses	(950,450)	(861,359)	(957,930)
Operating loss	(708,392)	(621,766)	(720,932)
Nonoperating revenues (expenses)			
Operating subsidies from NYC	563,460	516,981	449,769
Other Non-operating revenue/expenses	24,863	34,539	34,936
Total nonoperating revenues (expenses)	588,323	551,520	484,705
Loss before capital contributions	(120,069)	(70,246)	(236,227)
Capital contributed	58,253	26,691	4,475
Changes in net position	(61,816)	(43,555)	(231,752)
Net position, Beginning of year	(907,640)	(1,039,389)	(807,637)
RESTATEMENT OF BEGINNING NET POSITION (Note 2)	-	175,304	-
Net position, End of year	$ (969,456)	$ (907,640)	$ (1,039,389)

Revenues from Fares/Ridership:

December 31, 2019 versus 2018

Bus revenues from fares totaled $224.8 million in 2019 versus $220.9 million in 2018, an increase of $3.9 million, resulting from higher fares which went into effect in April 2019.

Total passenger ridership was 120.4 million in 2019 versus 121.4 million in 2018, a decrease of 1.0 million, or 0.8%. This decrease may be attributed in part to increasing transportation alternatives, such as those provided by ride-sharing companies.

December 31, 2018 versus 2017

Bus revenues from fares totaled $220.9 million in 2018 versus $217.2 million in 2017, an increase of $3.7 million, resulting from higher fares which went into effect in March 2017.

Total passenger ridership was 121.4 million in 2018 versus 122.2 million in 2017, a decrease of 0.8 million, or 0.7%. This decrease may be attributed in part to increasing transportation alternatives, such as those provided by ride-sharing companies.

Operating Expenses, by Major Function

	2019	2018	2017	Increase (Decrease) 2019-2018	Increase (Decrease) 2018-2017
		(In thousands)			
Salaries and wages	$ 381,643	$ 370,821	$ 350,879	$ 10,822	$ 19,942
Retirement and other employee benefits	257,189	170,280	247,906	86,909	(77,626)
Post employment benefits other than pensions	46,741	64,487	82,863	(17,746)	(18,376)
Fuel	24,920	27,042	19,537	(2,122)	7,505
Electric power	1,843	1,968	1,772	(125)	196
Insurance	4,614	5,557	5,633	(943)	(76)
Public liability claims	78,784	61,798	88,297	16,986	(26,499)
Materials and supplies	45,264	44,017	47,969	1,247	(3,952)
Professional services	28,296	28,490	23,767	(194)	4,723
Pollution remediation services	1,664	217	222	1,447	(5)
Maintenance and other operating expenses	31,338	29,637	26,521	1,701	3,116
Depreciation	44,703	53,021	58,588	(8,318)	(5,567)
Other business expenses	3,451	4,024	3,976	(573)	48
Total operating expenses	$ 950,450	$ 861,359	$ 957,930	$ 89,091	$ (96,571)

December 31, 2019 versus 2018

Total operating expenses increased by $89.1 million or 10.3% versus the prior year, as follows:

- Salaries and wages exceeded 2018 by $10.8 million or 2.9%, due to increased salaries resulting from contract settlements/retroactive wage accruals.
- Retirement and other employee benefits increased by $86.9 million. This was the result of changes in benefits for MTA Bus represented members of ATU Local 1179 and 1181, and TSO Local 106. The benefit modifications are similar to those previously received by TWU Local 100 represented members.
- Post-employment benefits other than pensions decreased by $17.7 million in accordance with the provisions of adopting GASB 75.
- Fuel costs decreased by $2.1 million or 7.8%, due to lower fuel costs.
- Insurance expense is comprised of excess liability, property and other insurance coverage paid under the MTA All-Agency insurance programs.
- Public liability and no fault claims increased by $17.0 million. This resulted from a surge in reported claim costs since the prior actuarial study. Additionally, there had been a continued increase to auto liability claim frequency over the past year.
- MTA Bus relies extensively on professional services provided by other MTA agencies, particularly NYC Transit, the Business Service Center, and MTA Headquarters. Professional service contracts decreased by $0.2 million.
- Other expenses consist of Automated Fare Collection (“AFC”) revenue collection fees paid to New York City Transit Authority ($1.9 million) or .0175 cents per AFC ridership transaction, office supplies and other miscellaneous charges.

December 31, 2018 versus 2017

Total operating expenses decreased by $96.6 million or 10.1% versus the prior year, as follows:

- Salaries and wages exceeded 2017 by $19.9 million or 5.7%, due to increased salaries resulting from contract settlements/retroactive wage accruals.

- Retirement and other employee benefits decreased by $77.6 million. An Arbitration Award between MTA Bus and TWU Local 100 providing enhanced benefits to covered employees resulted in a higher pension expense in 2017.

- Post-employment benefits other than pensions decreased by $18.4 million in accordance with the provisions of adopting GASB 75.

- Fuel costs increased by $7.5 million or 38.4%, due to higher fuel costs.

- Insurance expense is comprised of excess liability, property and other insurance coverage paid under the MTA All-Agency insurance programs.

- Public liability and no fault claims decreased by $26.5 million. Due to reported losses for several accident years being greater than former actuary’s estimates, the 2017 expense was adjusted higher.

- MTA Bus relies extensively on professional services provided by other MTA agencies, particularly NYC Transit, the Business Service Center, and MTA Headquarters. Professional service contracts increased by $4.7 million.

- Other expenses consist of Automated Fare Collection (“AFC”) revenue collection fees paid to New York City Transit Authority ($1.8 million) or .0175 cents per AFC ridership transaction, office supplies and other miscellaneous charges.

Non-operating Revenues and Expenses

As defined by the letter of agreement between The City of New York (“The City”) and MTA, The City is to provide operating assistance subsidies to MTA Bus. These subsidies amounted to $563.5 million and $517.0 million in 2019 and 2018, respectively. Projected subsidy amounts for calendar year 2020 are expected to be between $580 and $610 million depending on operating losses and timing of retroactive contract settlements.

In 2019, pursuant to MTA Board approval, MTA Bus received $12.3 million in discretionary Mortgage Recording Tax - 2 (“MRT-2”) monies as a subsidy from the MTA. The funds were used to pay commercial paper debt totaling $5.7 million.

Capital contributions of $58.3 million in 2019 and $26.7 million in 2018 represent capital program funding from several sources including bonds, Federal, State and City funding.

Budget Highlights

Financial:

Total revenue from fares in 2019 was $224.8 million. Passenger revenue was up $3.9 million over 2018 levels as the result of higher fares, which went into effect in April 2019.

Operations:

The focus on improving service, introducing new buses and performing scheduled maintenance on the bus fleet, as well as aggressive shop programs to improve the existing fleet yielded continued notable improvements in the reliability of the bus fleet. In addition, a significant level of facility work continued during 2019 to upgrade conditions and comply with environmental regulations. Additional work needs to be done to improve facility conditions in 2020 and beyond.

OVERALL FINANCIAL POSITION, RESULTS OF OPERATIONS AND IMPORTANT ECONOMIC CONDITIONS

Overall Financial Position and Results of Operations

MTA Bus is responsible for both the local and express bus operations of the seven previously private bus companies, consolidating their operations, maintaining current buses, purchasing new buses to replace the aging fleet currently in service, and adjusting schedules and route paths to better match travel demand. MTA Bus operates 47 local bus routes in the Bronx, Brooklyn, and Queens, and 35 express bus routes between Manhattan and the Bronx, Brooklyn, or Queens. It has a fleet of 1,288 buses, which makes MTA Bus the 10th largest bus fleet in the United States and Canada, serving nearly 400,000 riders daily.

Between 2005 and 2019, MTA Bus purchased 497 new high capacity, high customer amenity express buses, 389 new environmentally friendly hybrid electric local buses, 213 new CNG buses, 45 new standard buses, and 128 new low-floor articulated buses.

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 fourth quarter of 2019 increased relative to 2018, with ridership up by 5.4 million trips (0.2%). The increase was driven by MTA New York City Transit subway ridership, which rose by 17.7 million trips (1.1%).In addition, MTA Long Island Rail Road ridership rose by 1.3 million trips (1.5%) and MTA Metro-North Railroad rose by 0.1 million trips (0.1%). These increases through the fourth quarter were partially offset by ridership declines at MTA New York City Transit bus, which declined by 12.4 million trips (2.2%), MTA Bus, which declined by 1.0 million trips (0.8%), and MTA Staten Island Railway, which declined by 0.2 million trips (4.9%).The decline in bus ridership is consistent with a trend that began in 2009 and has been observed nationally, while the increase in subway ridership is the third quarterly increase after 12 consecutive year-on-year quarterly decreases that began in the second quarter of 2016. Vehicle traffic at MTA Bridges and Tunnels facilities through the fourth quarter increased by 7.1 million crossings (2.2%) compared with 2018 levels. The 2019 New York State Budget approved congestion pricing in Manhattan south of 60th Street, which is scheduled to go into effect in 2021—this will likely impact ridership and vehicle crossings.

Seasonally adjusted non-agricultural employment in New York City for the fourth quarter was higher in 2019 than in 2018 by 79.5 thousand jobs (1.7%).On a quarter-to-quarter basis, New York City employment increased 32.7 thousand jobs, increasing for thirty-seventh consecutive quarter—the last decline occurred in the third quarter of 2010—and was higher than at any time since 1950, when non-agricultural employment levels for New York City were first recorded by the Bureau of Labor Statistics.

National economic growth, as measured by Real Gross Domestic Product ("RGDP"), expanded at an annualized rate of 2.1% in the fourth quarter of 2019, according to the most recent advance estimate released by the Bureau of Economic Analysis. The increase in RGDP reflected increases in consumer spending, government spending, exports, and housing investment, which were partially offset by decreases in inventory investment and business investment. Imports, a subtraction in the calculation of GDP, decreased. The increase in consumer spending reflected increases in goods (led by motor vehicles and parts) and services (led by health care). The increase in government spending reflected increases at the federal, as well as state and local, government levels. The decline in inventory investment reflected a decrease in retail trade inventories (led by motor vehicle dealers), while the decline in business investment reflected a decrease in equipment (led by industrial equipment) and structures (led by mining exploration, shafts, and wells). In the third quarter, the annualized RGDP rate was also 2.1 percent.

The New York City metropolitan area's price inflation, as measured by the Consumer Price Index for All Urban Consumers ("CPI-U"), was lower than the national average in the fourth quarter of 2019, with the metropolitan area index increasing 1.84% while the national index increased 2.03%, when compared with the fourth quarter of 2018.Decreases in both the regional and national price of energy products (2.52% for the region, and 0.56% nationally) contributed to the low inflation rates; in the metropolitan area, the CPI-U exclusive of energy products increased by 2.15%, while nationally, inflation exclusive of energy products increased 2.25%. However, the spot price for New York Harbor conventional gasoline increased by 1.2%, from an average price of $1.70 per gallon to an average price of $1.72 per gallon between the fourth quarters of 2018 and 2019.

The Federal Open Market Committee ("FOMC") lowered its target for the Federal Funds rate during the fourth quarter of 2019, by a quarter point on October 31, 2019 to the target range of 1.50% to 1.75%.Job gains have been solid, on average, in recent months, and the unemployment rate has remained low. Although household spending has been rising at a strong pace, business fixed investment and exports remain weak. On a twelve-month basis, overall inflation and inflation for items other than food and energy are running below 2 percent, and market-based measures of inflation compensation remain low and survey-based measures of longer-term inflation expectations are little changed. The target rate reduction supports the FOMC's view that sustained expansion of economic activity, strong labor market conditions and inflation near the FOMC's 2 percent objective remain the most likely outcomes, but uncertainties remain. The FOMC indicated that the timing and size of future adjustments to the target range would consider realized and expected economic conditions relative to its maximum employment objective and its 2 percent inflation objective, including measures of labor market conditions, indicators of inflation and inflation expectations, and financial and international developments.

The influence of the Federal Reserve's monetary policy on the mortgage market is a matter of interest to the MTA, since variability of mortgage rates can affect the number of real estate transactions and thereby impact receipts from the Mortgage Recording Tax ("MRT") and Urban Tax, two important sources of MTA revenue. Mortgage Recording Tax collections for the fourth quarter of 2019 were higher than the fourth quarter of 2018 by $10.4 million (9.6%); receipts in the fourth quarter of 2019 were $10.3 million (8.0%) lower than receipts from the third quarter. Despite the overall recovery of MRT receipts that began in 2012 following the financial crisis, average monthly receipts in the fourth quarter of 2019 remain $25.1 million (39.5%) lower than the monthly average for 2006, just prior to the steep decline in Mortgage Recording Tax revenues. MTA's Urban Tax receipts—which are based on commercial real estate transactions and mortgage recording activity within New York City, and can vary significantly from quarter to quarter based on the timing of exceptionally high-priced transactions—were $4.0 million (2.6%) lower in the fourth quarter of 2019 than receipts for the fourth quarter of 2018; receipts in the fourth quarter of 2019 were $3.2 million (2.1%) higher than receipts from the third quarter. Average monthly receipts in the fourth quarter of 2019 were $17.9 million (24.3%) lower than the monthly average for 2007, just prior to the steep decline in Urban Tax revenues following the 2008 financial crisis.

Results of Operations - Bus revenues from fares totaled $224.8 million in 2019 versus $220.9 million in 2018. Total ridership was 120.4 million in 2019 versus 121.4 million in 2018, a decrease in passenger ridership of 1.0 million, or 0.8%. The increase in revenue could be attributable to higher fares, which went into effect in April 2019. Calendar year 2019 ended with a $10.7 million cash surplus, while 2018 ended with a deficit of $86.3 million. This was attributable to the timing of New York City subsidy payments, which cover shortfalls in working capital. The MTA expects that, over time, Federal and State economic stimulus measures and the rebuilding of downtown infrastructure will further improve the New York City economy.

SIGNIFICANT CAPITAL ASSET ACTIVITY

***Capital Program* —** As last approved by the CPRB, the Bus Company's portion of the MTA's 2000-2004, 2005-2009, 2010-2014, 2015-2019 and 2020-2024 Capital Programs totaled $501.6 million, $152.0 million, $297.0 million, $376.0 million, and $870.7 million respectively.

On December 19, 2012, the MTA Board approved an amendment to the 2010-2014 Capital Program to add projects for the repair and restoration of MTA agency assets damaged as a result of Superstorm Sandy, which struck the region on October 29, 2012. The revised program provided for an additional $25.0 million to the Bus Company in Sandy recovery-related capital expenditures. On January 23, 2013, the amended program as submitted was deemed approved by the CPRB. On July 22, 2013, the MTA Board approved a further amendment to the 2010-2014 Capital Program to include specific revisions to planned projects and to include new resilience/mitigation initiatives in response to Superstorm Sandy. The further revised program provides for an additional $46.0 million to the Bus Company in resilience/mitigation-related capital expenditures. On August 27, 2013, the amended program as submitted was deemed approved by the CPRB. On July 28, 2014, the MTA Board approved an amendment to select elements of the MTA Sandy recovery-related capital expenditures and NYCT portions of the 2010-2014 Capital Program. The amendment transfers $46.0 million in resiliency/mitigation capital budget from the Bus Company to LIRR. On September 3, 2014, the amended program as submitted was deemed approved by the CPRB. On April 20, 2016, the MTA Board approved a fully funded 2015-2019 Capital Program. This submission was approved by the CPRB on May 23, 2016. On May 24, 2017, the MTA Board approved amendments to the 2010-2014 and the 2015-2019 capital programs primarily to reflect budgetary and funding adjustments to the Sandy program in the 2010-2014 Capital Program, and increasing support for priority projects in the 2015-2019 Capital Program. In the amendment to the 2010-2014 program, the $25.0 million originally budgeted for Bus Company's Sandy recovery project was adjusted to $15.0 million. The amended capital programs, as submitted, were deemed approved by the CPRB on July 31, 2017. On September 25, 2019, the MTA Board approved full amendments to the 2010-2014 and 2015-2019 capital programs reflecting updated project timing and cost estimates, new needs, and changing priorities. The amended 2010-2014 Capital Program adjusted the Bus Company's Sandy repair project to $11.0 million to reflect final project cost. The total values of Bus Company's core programs have not changed in both amendments.

As of December 31, 2019, $499.0 million has been committed under the 2000-2004 Program, of which $495.0 million has been expended. In 2019, 39 Articulated buses were accepted at the depots and placed in revenue service.

Among the projects included in the 2005-2009 MTA Bus Company Capital Program are initiatives to bring bus maintenance facilities up to a state of good repair and to replace heavy duty, non-revenue vehicles. As of December 31, 2019, $144.0 million has been committed under the 2005-2009 Program, of which $135.0 million has been expended.

The MTA Board approved 2010-2014 MTA Bus Company Capital Program, as last amended in 2019, includes projects to replace the aging bus fleet, replace outdated depot equipment, improve depot facilities, and repair Superstorm Sandy damaged MTA Bus facilities. As of December 31, 2019, $276.0 million has been committed under the 2010-2014 Program, of which $241.0 million has been expended.

The MTA Board approved 2015-2019 MTA Bus Company Capital Program, as last amended in 2019, includes projects to replace the aging bus fleet, replace outdated depot equipment, and improve depot facilities. As of December 31, 2019, $263.0 million has been committed under the 2015-2019 Program, of which $44.0 million has been expended.

CAPITAL FINANCING

The MTA 2000-2004 Capital Program includes $501.6 million in capital projects for MTA Bus, a substantial portion of which is designed for bus fleet replacement. The MTA 2005-2009 Capital Program includes $152.0 million in capital projects for MTA Bus, which includes improvements to bus maintenance and storage facilities. The MTA 2010-2014 Capital Program, as last approved by the CPRB on September 25, 2019, includes $297.0 million in capital projects for MTA Bus, which includes bus fleet replacement and depot improvements, plus an additional $11.0 million for Superstorm Sandy repairs. The MTA 2015-2019 Capital Program includes $376.0 million for MTA Bus, which includes bus fleet replacement and depot improvements. The 2020-2024 Capital Program includes $870.7 million for MTA Bus, which includes bus fleet replacement as well as depot and equipment investments.

The MTA Bus capital projects included in the MTA 2000-2004 Capital Program, the MTA 2005-2009 Capital Program, the MTA 2010-2014 Capital Program, the MTA 2015-2019 Capital Program, and the MTA 2020-2024 Capital Program are funded from a combination of Federal grants, city funds, MTA Bond proceeds, and other sources. The combined funding sources for the 2000-2004 MTA Bus Company Capital Program include $49.0 million in City funds, $327.6 million in MTA Bond proceeds, and $125.0 million from other sources. The combined funding sources for the 2005-2009 MTA Bus Company Capital Program include $107.7 million in Federal funds, $41.4 million in City funds, and $2.9 million from other sources. The combined funding sources for the 2010-2014 MTA Bus Company Capital Program, as last amended by the MTA Board in September 2019, include $203.6 million in Federal funds, $50.9 million in City funds and $42.5 million in MTA Bond proceeds. The MTA Bus Company will also receive $11.0 million in federal reimbursement proceeds for Superstorm Sandy repair. The combined funding sources for the 2015-2019 MTA Bus Company Capital Program, as last approved by the MTA Board, includes $133.0 million in Federal funds, $32.0 million in City funds, and $211.0 million in MTA Bond proceeds. The 2020-2024 MTA Bus Company Capital Program will be funded by a combination of Federal, City and local capital resources.

CURRENTLY KNOWN FACTS, DECISIONS OR CONDITIONS

Based on ridership and fleet size, MTA Bus Company remains within the top 10 largest bus companies in North America and provides local and express bus service throughout the New York City boroughs of Queens, Brooklyn, Bronx and Manhattan. The Company remains committed to providing safe, secure, reliable, and cost efficient transportation service across the New York region. Bus operations have been consolidated and most management and support functions have been streamlined and coordinated with MTA NYCT Department of Buses (DOB) to eliminate redundancies and benefit from economies of scale. MTA Bus is part of the overall NYC Transit Bus Plan that includes bus network redesign, bus stop rationalization, bus lane enforcement and traffic light prioritization. This is part of the overall goal aimed at improving service and providing a positive customer experience. The utilization of technology to assist in meeting these and other objectives related to improvement in scheduling, fleet safety, reliability and appearance is continuing. Discussions regarding new fare payment methods are ongoing and implementation schedules will match those of other MTA Agencies.

MTA Bus Company is included in the overall MTA Capital program plans. Facility improvements, a joint Bus Command Center and Radios System project with NYCT, the replacement of 257 express and 53 articulated buses are examples of current capitally funded projects.

A total of three MTA Bus Select Bus Service (SBS) routes, the (Q52/53) that traverses the busy Woodhaven/Cross Bay Boulevard, Queens corridor and the (Q70) which provides service linking the main terminals of LaGuardia Airport with regional intermodal transit hubs in Jackson Heights and Woodside, is fully operational and has improved service on those corridors. Express Bus service that is pivotal to providing effective peak hour commuter service from the outer boroughs, account for approximately 48% of the total service.

MTA Bus Company's 2019 Adopted Budget includes total expenses, before depreciation and other post-employement benefits, of $836.6 million. Total revenue is projected to be $248.0 million, of which $221.4 million is Farebox Revenue, $20.7 million is Other Operating Revenue, and $5.9 million is Capital and Other Reimbursements.

MTA Bus follows the MTA Agency fare increase schedule and rates as approved by the MTA Board, with the last increase taking effect April 21, 2019. Discussions at the NY State and NY City levels regarding the implementation of congestion pricing aimed at generating revenue for the Transit system are ongoing. NY City has increased it scheduled monthly subsidy to reflect current cashflow needs and reduce required breakeven settlements

Labor Update

Represented employees are covered under four labor contracts, ATU 1179 – expires October 31, 2019, ATU 1181 – expires October 31, 2019, TSO/TWU 106 – expired August 31, 2018, UTLO – expires June 30, 2019 and the largest, TWU 100 – expires May 15, 2019. Negotiations on expired and expiring contracts are ongoing.

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DRAFT

MTA BUS COMPANY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF NET POSITION
DECEMBER 31, 2019 AND 2018

	2019	2018
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
CURRENT ASSETS:		
Cash (Note 3)	$ 1,061,748	$ 175,618
Receivables:		
Due from affiliates - operating (Note 13)	74,673,615	47,120,479
Subsidy due from New York City	10,209,411	115,314,789
Other Subsidy	4,425,463	2,761,528
Other	571,468	3,727,488
Total receivables	89,879,957	168,924,284
Materials and supplies inventory	14,933,139	13,687,250
Prepaid expenses and other current assets	5,172,153	4,471,051
Total current assets	111,046,997	187,258,203
CAPITAL ASSETS:		
Land and construction work in progress— (Note 5)	35,777,152	50,708,051
Other capital assets — net of accumulated depreciation (Note 5)	333,096,137	288,898,024
Capital assets — net (Note 5)	368,873,289	339,606,075
Total Assets	479,920,286	526,864,278
DEFERRED OUTFLOWS OF RESOURCES:		
Deferred outflows for pensions (Note 6)	130,889,089	82,053,861
Deferred outflows for OPEB (Note 7)	51,699,292	50,367,030
Total Deferred Outflows of Resources	182,588,381	132,420,891
TOTAL ASSET AND DEFERRED OUTFLOWS OF RESOURCES	$ 662,508,667	$ 659,285,169
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION		
CURRENT LIABILITIES:		
Accounts payable	$ 6,153,908	$ 11,367,067
Accrued expenses:		
Salaries, wages and payroll taxes	22,756,043	25,385,283
Vacation and sick pay benefits	46,656,374	45,289,664
Current portion - Estimated liability from injuries to persons (Note 10)	54,500,000	47,000,000
Current portion - Pollution remediation projects (Note 12)	6,501,004	7,303,819
Other	19,183,792	11,840,605
Total accrued expenses	149,597,213	136,819,371
Due to MTA and other affiliated agencies (Note 13)	52,281,977	149,624,390
Total current liabilities	208,033,098	297,810,828
NONCURRENT LIABILITIES:		
Post employment benefits other than pensions (Note 7)	633,567,152	695,528,981
Estimated liability arising from injuries to persons (Note 10)	354,620,347	320,762,811
Net pension liability (Note 6)	301,792,717	166,590,528
Capital loans (Note 9)	-	
Pollution remediation projects (Note 12)	5,042,018	4,336,977
Total noncurrent liabilities	1,295,022,234	1,187,219,297
Total liabilities	1,503,055,332	1,485,030,125
DEFERRED INFLOWS OF RESOURCES		
Deferred inflows for pensions (Note 6)	46,564,714	81,179,092
Deferred inflows for OPEB (Note 7)	82,344,675	716,200
Total Deferred Inflows of Resources	128,909,389	81,895,292
NET POSITION:		
Net Investment in Capital Assets	368,873,289	339,606,075
Unrestricted (deficit)	(1,338,329,343)	(1,247,246,323)
Total net position	(969,456,054)	(907,640,248)
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	$ 662,508,667	$ 659,285,169

See notes to financial statements.

MTA BUS COMPANY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
OPERATING REVENUES:		
Fare revenue	$ 224,811,595	$ 220,887,114
Rents, freight, and other revenue	17,246,582	18,705,846
Total operating revenue	242,058,177	239,592,960
OPERATING EXPENSES:		
Salaries and wages	381,643,407	370,820,984
Retirement and other employee benefits	257,189,340	170,280,296
Post employment benefits other than pensions	46,740,972	64,486,680
Fuel	24,919,646	27,041,672
Electric power	1,842,725	1,967,928
Insurance	4,614,325	5,557,319
Public liability claims	78,783,709	61,797,574
Materials and supplies	45,263,608	44,017,323
Professional services	28,296,207	28,490,329
Pollution remediation services	1,664,295	217,533
Maintenance and other operating expenses	31,338,437	29,637,298
Depreciation	44,702,556	53,020,701
Other business expenses	3,450,987	4,023,759
Total operating expenses	950,450,214	861,359,396
OPERATING LOSS	(708,392,037)	(621,766,436)
NON-OPERATING REVENUES (EXPENSES):		
NYC Operating subsidies	563,460,107	516,981,345
Other Non-operating revenue/espenses	24,862,824	34,539,298
Total net non-operating revenues	588,322,931	551,520,643
LOSS BEFORE CAPITAL CONTRIBUTIONS	(120,069,106)	(70,245,793)
CAPITAL CONTRIBUTION	58,253,300	26,690,787
CHANGES IN NET POSITION	(61,815,806)	(43,555,006)
NET POSITION — Beginning of year	(907,640,248)	(1,039,388,945)
RESTATEMENT OF BEGINNING NET POSITION (Note 2)		175,303,703
NET POSITION — End of year	$ (969,456,054)	$ (907,640,248)

See notes to financial statements.

MTA BUS COMPANY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES:		
Cash received from passenger, tenants, advertisers, and others	$ 242,132,570	$ 241,644,795
Cash payments for payroll and related employee costs	(617,450,384)	(590,920,077)
Cash payments to suppliers for goods and services	(215,195,328)	(144,004,071)
Net cash used in operating activities	(590,513,142)	(493,279,353)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Subsidies received from NYC — operations	668,565,485	463,622,711
Receipt of mortgage recording tax revenue and NYCTA reimbursement	23,801,250	35,351,409
Net cash provided by noncapital financing activities	692,366,735	498,974,120
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Interest paid		(1,410,532)
Capital contributed	58,253,299	26,690,787
Capital project costs incurred for capital program	(73,969,770)	(46,355,263)
Decrease in intercompany capital pool loan		(11,031,602)
Net cash used in capital and related financing activities	(15,716,471)	(32,106,610)
CASH FLOWS FROM INVESTING ACTIVITIES:		
(Decrease) Increase in invested funds at MTA	(86,312,566)	25,812,385
Earnings on investments	1,061,574	598,422
Net cash (used in)/provided by investing activities	(85,250,992)	26,410,807
NET INCREASE/(DECREASE) IN CASH	886,130	(1,036)
CASH — Beginning of year	175,618	176,654
CASH — End of year	$ 1,061,748	$ 175,618

See notes to financial statements.

(Continued)

MTA BUS COMPANY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF CASH FLOWS (Continued)
YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
RECONCILIATION OF OPERATING LOSS TO NET CASH FLOWS USED IN OPERATING ACTIVITIES:		
Operating loss	$ (708,392,037)	$ (621,766,436)
Adjustments to reconcile operating loss to net cash used in operating activities:		
Depreciation	44,702,556	53,020,701
Changes in operating assets and liabilities:		
Decrease (Increase) in receivables	(26,061,051)	11,445,764
Decrease (Increase) in material and supplies, and prepaid expenses	(2,863,996)	762,774
Increase in payables, accrued expenses & other liabilities	102,101,386	63,257,844
Net Cash Used in Operating Activities	$ (590,513,142)	$ (493,279,353)
NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES:		
MTA Contributed capital assets	$ 19,834,807	$ 19,834,807
Capital assets related liabilities	$ 0	$ 0

See notes to financial statements. (Concluded)

1. BASIS OF PRESENTATION

Reporting Entity — The accompanying financial statements present the accounts of MTA Bus Company ("MTA Bus"), which is a public benefit corporation created pursuant to the Public Authorities Law (the "Act") of the State of New York (the "State") to operate public bus service within The City of New York (the "City"). MTA Bus, which is a Component Unit of the Metropolitan Transportation Authority (MTA), was created to take over the operations of seven private bus lines that operated under franchises from The City of New York.

MTA Bus is operationally and legally independent of the MTA. MTA Bus enjoys certain rights typically associated with separate legal status. However, MTA Bus is included in the MTA's consolidated financial statements as a blended component unit because of the MTA's financial accountability, and MTA Bus is under the direction of the MTA Board (a reference to "MTA Board" means the board of MTA and/or the boards of the MTA Bus and other MTA component units 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 MTA Bus in its consolidated financial statements.

MTA Bus has material transactions with affiliated agencies included in the MTA financial reporting group. Such agencies include the MTA, the New York City Transit Authority ("NYCTA"), and the Manhattan and Bronx Surface Transit Operating Authority ("MaBSTOA"). All material transactions between MTA Bus and affiliated agencies have been recorded as of December 31, 2019 and 2018.

MTA Bus is part of the financial reporting group of the MTA and is included in the consolidated financial statements of the MTA in accordance with GASB Statement No. 14. The MTA is a Component Unit of the State and is included in the State of New York Comprehensive Annual Financial Report of the State Comptroller as a public benefit corporation.

Operations — Operations are conducted per the letter agreement dated December 8, 2004, between The City and the MTA, which includes provisions for the lease of City bus assets including real property and related facilities, buses and related materials and supplies, and any other assets acquired by The City and made available to MTA Bus for the operations of the former private bus lines.

The City has the option to terminate the letter agreement at any time upon one year's written notice to the MTA. In the event of termination, The City is required to assume the assets and liabilities, including OPEB and pension liabilities, of MTA Bus and must pay or make provisions for the payment of any outstanding debt incurred by the MTA on behalf of MTA Bus. Any liabilities incurred by the franchised bus companies prior to the date of acquisition are liabilities of The City.

2. SIGNIFICANT ACCOUNTING POLICIES

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

MTA Bus 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

MTA Bus adopted the following GASB Statements for the year ended December 31, 2019:

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

GASB Statement No. 84, *Fiduciary Activities*, improves guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The requirements of GASB Statement No. 84 are effective for reporting periods beginning after December 15, 2018. The adoption of this Statement had no material impact on MTA Bus's financial statements.

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

GASB Statement No. 90, "*Majority Equity Interest- an Amendment of GASB Statements No. 14 and No. 61"*, improves consistency in the measurement and comparability of the financial statement presentation of majority equity interests in legally separate organizations and improves the relevance of financial statement information for certain component units. The Statement defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. The Statement also establishes that ownership of a majority equity interest in a legally separate organization results in the government being financially accountable for the legally separate organization and, therefore, the government should report that organization as a component unit. In addition, the Statement also requires that a component unit in which a government has a 100 percent equity interest account for its assets, deferred outflows of resources, liabilities and deferred inflows of resources at acquisition value. GASB Statement No. 90 is effective for reporting periods beginning after December 15, 2018. The adoption of this Statement had no material impact on MTA Bus's financial statements.

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 MTA Bus 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*	2020
89	*Accounting for Interest Cost Incurred Before the End of a Construction Period*	2020
91	*Conduit Debt Obligations*	2021
92	*Omnibus 2020*	2021
93	*Replacement of Interbank Offered Rates*	2021
94	*Public-Private and Public-Public Partnerships and Availability Payment Arrangements*	2023

Due from NYCTA for Metrocard Settlements — Fare revenue information for MTA Bus is collected by the NYCTA Metrocards automated fare collection ("AFC") system. NYCTA wires funds to MTA Bus on the first business day of the week for transactions occurring during the prior week. MTA Bus has a receivable from NYCTA, which represents fares collected on behalf of MTA Bus up to the end of the reporting period, but not received by MTA Bus until the next period.

Capital Assets — The City owns or leases the real property, including buildings and improvements, used as bus depots and yards. Accordingly, these assets are not recorded on the books of MTA Bus. However, MTA Bus does record certain other capital assets, which are primarily buses and related equipment (see Note 5). Capital assets have minimum useful life of 3 years and a cost of more than $25,000.

Capital assets are recorded at cost and are depreciated on a straight-line basis over 12 years for buses, with lives generally ranging from 5 to 15 years for other capital assets.

Long lived assets are reviewed for impairment whenever events or circumstances indicate that the carrying amount may not be recoverable. Impairment loss on assets to be sold, if any, is based on the estimated proceeds to be received, less estimated cost to sell.

Expenditures for maintenance and repairs which do not extend the useful life of assets are charged to operations as incurred.

Contributed Capital — Capital funds contributed by the MTA are recorded as capital contributions on the statement of revenues, expenses and changes in net position. Contributed capital is recognized upon identification of capital costs to be funded by the MTA. Capital contributed for the years ended December 31, 2019 and 2018, amounted to $58.3 million and $26.7 million, respectively.

Passenger Revenue — Revenues from the sale of farecards are recognized as income as the farecards are used and are reported as operating income.

Materials and Supplies — Materials and supplies are recorded at weighted average cost, net of a reserve for obsolete/excess inventory.

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 MTA Bus are reported as operating expenses. All other expenses are reported as non-operating expenses.

MTA Investment Pool — The MTA, on behalf of MTA Bus, invests funds which are not immediately required for MTA Bus's operations in securities permitted by the State Public Authorities Law, including repurchase agreements collateralized by U.S. Treasury securities, U.S. Treasury notes and U.S. Treasury zero-coupon bonds. All investments are held by the MTA's agent in custody accounts in the name of the MTA.

MTA Bus records its position in the Pool based upon a net asset value derived on assets invested in the Pool plus all realized income and losses earned. Unrealized appreciation, which is not significant to MTA Bus, is retained on the MTA's books and not included in MTA Bus's financial statement.

Investments maturing and expected to be liquidated within a year have been classified as current assets in the financial statements of MTA Bus. Investments are recorded on the Statements of Net Position at fair value which is the amount at which a financial instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. All investment income, including changes in the fair value of investments, is reported as investment income.

Receivables — Receivables are recorded as amounts due to MTA Bus, reduced by an allowance for doubtful accounts, if applicable, to report the receivables as net realizable value.

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

The City Operating Subsidy — Pursuant to the letter agreement between The City and the MTA, The City has agreed to pay MTA Bus the difference between the actual costs of operation of the formerly franchised private bus lines and all revenues and othr reimbursement subsidies. For calendar years 2019 and 2018, MTA Bus received cash payments of $668.6 million and $463.6 million, respectively, in operating assistance from The City. At year end December 31, 2019 and 2018, MTA Bus recorded a subsidy receivable due from The City of approximately $10.2 million and $115.3 million, respectively, pursuant to the agreement between MTA Bus and The City's Office of Management and Budget.

Advances from The City — **Environmental Remediation** — In accordance with the supplemental agreement between The City and the MTA, on behalf of MTA Bus, The City agreed to fund an Environmental Remediation Reserve Fund ($6.3 million). With the assistance of the NYCT (CPM Environmental Engineering) and independent consultants working on behalf of the New York City Department of Design and Construction, six Bus Company depots were designated for environmental soil and groundwater remediation work totaling $6.3 million. The City funded this reserve in June 2007 and the amount was used to fund the initial $6.3 million project, as well as future projects. In July 2011, The City funded the Environmental Remediation Reserve Fund with an additional $11.1 million. During 2019, MTA Bus reduced the Environmental Remediation Reserve Fund by $1.0 million, based on actual cash expenditures, leaving a balance of $6.5 million as of December 31, 2019. Refer to Note 12 for more information.

Mortgage Recording Tax-2 — In 2007, the MTA Board approved the allocation of Mortgage Recording Tax ("MRT-2") receipts to MTA Bus. These funds are to be administered by the MTA Treasurer and used solely for funding the 2005-2009 Capital Program debt service requirements and repayment of the $113.8 million intercompany capital pool loan. Amounts budgeted from MRT-2 funds for such purposes were $12.3 million for 2019. The $12.3 million received in 2019 was used to repay $5.7 million for debt service on transportation Revenue Bonds.

Pension Plans — Effective for the year-ended December 31, 2015, the MTA adopted the standards of GASB Statement No. 68, *Accounting & Financial Reporting for Pensions* and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date*, for its pension plans.

MTA Bus 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 MTA's fiscal year-end. Changes in the net pension liability during the period 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 period 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 Unit of pension expense beginning with the period in which they are incurred. Projected earnings on qualified pension plan investments are recognized as a Component Unit 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 Unit of pension expense on a closed basis over a five-year period beginning with the period in which the difference occurred.

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

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

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

MTA Bus recognizes a proportionate share of the net OPEB liability for the MTA's cost-sharing multiple-employer OPEB Plan, 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.

Restatement of Beginning Net Position

The effect of the implementation of GASB No. 75 and 85 is a restatement of 2018 beginning net position to retroactively report the beginning balances for net OPEB liability, deferred outflows of resources related to OPEB, deferred inflows of resources related to OPEB, and the removal of any net OPEB obligations (assets) along with any payables to the OPEB Plan, as follows:

Net position as of December 31, 2017, as previously reported	$	(1,039,388)
Composition of Restatement:		
Deferred outflows related to contributions, beginning of the year		22,095
Net OPEB liabilities, beginning of the year		(626,699)
Accrued OPEB liabilities, as previously reported		779,907
Total Restatement:		175,303
Net position as of December 31, 2017, as restated	$	(864,085)

NYCT Reimbursement — In accordance with the MTA's 2008 Adopted Budget Staff Summary, the NYCT will reimburse MTA Bus approximately $11.5 million per year for debt service, which reflects the fact that the Federal grants and matching City moneys originally intended for use by the City franchise buses taken over by MTA Bus could not be used by MTA Bus, so they were assigned to NYCT for use in its capital projects.

Risk Management — Prior to January 1, 2006, Liberty Lines Express, Queens Surface, New York Bus Service and Command Bus were covered for the cost of injury liability and property damage under the New York City Department of Transportation insurance pool program. This insurance program covered the administration and payment of claims without the need for self-insurance coverage on the part of the former private lines.

Subsequent to January 1, 2006, the former private bus lines are now self-insured up to certain per occurrence limits for liability claims arising from injuries to persons, excluding employees, under the MTA's various insurance programs. Claims arising between January 1, 2006, and October 31, 2006, are subject to a $7.0 million per occurrence limit; claims arising between October 31, 2006, and October 31, 2009, are subject to an $8.0 million per occurrence limit; and claims arising after October 31, 2009, are subject to a $9.0 million per occurrence limit. Effective November 1, 2012, claims are subject to a $10.0 million per occurrence limit. Effective October 31, 2015, claims are subject to an $11.0 million per occurrence limit. The annual cost associated with injuries to persons, other than employees, and damage to third-party property, is reflected in expenses as public liability claims in the accompanying statements of revenues, expenses and changes in net position.

Liability Insurance — First Mutual Transportation Assurance Company (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 limit is $8.0 million. For claims arising from incidents that occurred on or after November 1, 2009, but before November 1, 2012, the self-insured retention limit is $9.0 million. Effective November 1, 2012 the self-insured retention limits for ELF was increased to $10.0 million. Effective October 31, 2015, the self-insured retention limits for ELF were increased to $11.0 million. 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 $50.0 million. 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 Related Entities above their specifically assigned self-insured retention with a limit of $50.0 million per occurrence with a $50.0 million annual aggregate. FMTAC charges appropriate annual premiums based on loss experience and exposure analysis to maintain the fiscal viability of the program. On December 31, 2019, the balance of the assets in this program was $164.1 million.

MTA also maintains an All-Agency Excess Liability Insurance Policy that affords the MTA Related Entities additional coverage limits of $350.0 million for a total limit of $400.0 million ($350.0 million excess of $50.0 million). 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 $50.0 million.

On March 1, 2019, the “nonrevenue fleet” automobile liability policy program was renewed. This program provides third-party auto liability insurance protection for the MTA and its subsidiaries and affiliates with the exception of NYCT, MTA Bus and TBTA. The policy provides $11.0 million per occurrence limit with a $0.5 million per occurrence deductible. FMTAC renewed its deductible buy back policy, where it assumes the liability of the agencies for their deductible.

On March 1, 2019, the “Access-A-Ride” automobile liability policy program was renewed. This program provides third-party auto liability insurance protection for NYCT’s Access-A-Ride program, including the contracted operators. This policy provides a $2.0 million per occurrence limit with a $1.0 million per occurrence deductible.

Property Insurance – Effective May 1, 2019, FMTAC renewed the all-agency property insurance program. For the annual period commencing May 1, 2019, FMTAC directly insures property damage claims of the Related Entities in excess of a $25.0 million per occurrence deductible, subject to an annual $75.0 million aggregate deductible. The total All Risk program annual limit is $575.0 million 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 million per occurrence. The property insurance policy provides replacement cost coverage for all risks (including Earthquake, Flood and Wind) of direct physical loss or damage to all real and personal property, with minor exceptions. The policy also provides extra expense and business interruption coverage.

Supplementing the $575.0 million per occurrence noted above, FMTAC’s property insurance program has been expanded to include $125.0 million of fully collateralized earthquake coverage for an event of a certain index value and for storm surge coverage for losses from storm surges that surpass specified trigger levels in the New York Harbor or Long Island Sound and are associated with named storms that occur at any point in the three year period from May 23, 2017 to April 30, 2020. The expanded protection is reinsured by MetroCat Re Ltd. 2017-1, a Bermuda special purpose insurer independent from the MTA and formed to provide FMTAC with capital markets based property reinsurance. The MetroCat Re Ltd. 2017-1 reinsurance policy is fully collateralized by a Regulation 114 trust invested in U.S. Treasury Money Market Funds. The additional coverage provided is parametric and available for storm surge losses resulting from a storm that causes water levels that reach the specified index values, and also for an earthquake event of a certain index value.

With respect to acts of terrorism, FMTAC provides direct coverage that is reinsured by the United States Government for 81% of “certified” losses in 2019 and 80% of “certified” losses in 2020, as covered by the Terrorism Risk Insurance Program Reauthorization Act (“TRIPRA”) of 2015. The remaining 19% (2019) and 20% (2020) of the Related Entities’ losses arising from an act of terrorism would be covered under the additional terrorism policy described below. No federal compensation will be paid unless the aggregate industry insured losses exceed a trigger of $180.0 million in 2019 and $200.0 million in 2020. The United States government’s reinsurance is in place through December 31, 2020.

To supplement the reinsurance to FMTAC through the TRIPRA, MTA obtained an additional commercial reinsurance policy with various reinsurance carriers in the domestic, London and European marketplaces. That policy provides coverage for (1) 19% of any “certified” act of terrorism up to a maximum recovery of $204.3 million for any one occurrence and in the annual aggregate during 2019 and 20% of any “certified” act of terrorism up to a maximum recovery of $215.0 million for any one occurrence and in the annual aggregate during 2020 (2) the TRIPRA FMTAC captive deductible (per occurrence and on an aggregated basis) that applies when recovering under the "certified" acts of terrorism insurance or (3) 100% of any "certified" terrorism loss which exceeds $5.0 million and less than the $180.0 million TRIPRA trigger up to a maximum recovery of $180.0 million for any occurrence and in the annual aggregate during 2019 or 100% of any "certified" terrorism loss which exceeds $5.0 million and less than the $200.0 million TRIPRA trigger up to a maximum recovery of $200.0 million for any occurrence and in the annual aggregate during 2020.

Additionally, MTA purchases coverage for acts of terrorism which are not certified under TRIPRA to a maximum of $204.3 million in 2019, and $215.0 million in 2020. Recovery under the terrorism policy is subject to a deductible of $25.0 million per occurrence and $75.0 million in the annual aggregate in the event of multiple losses during the policy year. Should the Related Entities' deductible in any one year exceed $75.0 million future losses in that policy year are subject to a deductible of $7.5 million. The terrorism coverages expire at midnight on December 31, 2020.

Injuries to Employees — MTA Bus's predecessor's workers' compensation program was insured through American International Group (AIG). This policy was continued through January 2, 2006. When New York Bus and Command Bus became members of MTA Bus, their workers' compensation exposures were rolled into the AIG program. At the time of its merger with MTA Bus, coverage for Queens Surface was underwritten by Zurich American Insurance Company, which was also retained through January 2, 2006.

Effective January 3, 2006, and on a prospective basis, the MTA, on behalf of MTA Bus, established a master workers' compensation program with AIG. This insurance coverage provides both claims management and risk financing up to the statutory limits set by the State of New York, including acts of terrorism. When the other private bus lines (Green Bus, Jamaica Buses, and Triboro Coach) were merged into MTA Bus in the first quarter of 2006, they were rolled into the AIG program.

As risk of loss from worker's compensation claims was borne by AIG, MTA Bus did not record a liability reserve in the financial statements at December 31, 2008. Premium payments for worker's compensation coverage amounted to approximately $12.0 million and $13.8 million for the calendar years 2008 and 2007, respectively.

Effective January 2, 2009, MTA Bus, established a self-insured workers' compensation program and has recorded a $149.7 million liability reserve in the financial statements at December 31, 2019. During calendar year 2019, $19.9 million was paid to beneficiaries.

Pollution Remediation Projects — Effective January 1, 2008, pollution remediation costs are being 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. Pollution remediation obligations occur when any one of the following obligating events takes place: MTA Bus is in violation of a pollution prevention-related permit or license; an imminent threat to public health due to pollution exists; MTA Bus is named by a regulator as a responsible or potentially responsible party to participate in remediation; MTA Bus voluntarily commences or legally obligates itself to commence remediation efforts; or MTA Bus is named or there is evidence to indicate that it will be named in a lawsuit that compels participation in remediation activities.

3. CASH

Cash in bank accounts are insured up to $250,000 in the aggregate by the Federal Deposit Insurance Corporation ("FDIC") for each bank in which funds are deposited.

Cash in bank account balances in 2019 and 2018 that were not insured were maintained in major financial institutions. Management periodically reassess the credit worthiness of such financial institutions.

Cash at December 31, 2019 and 2018, consists of the following (not in thousands):

	2019		2018	
	Book Balance	Bank Balance	Book Balance	Bank Balance
Insured (FDIC) and collateralized deposits	$ 310,686	$ 310,686	$ 165,544	$ 317,943
Commercially insured funds on-hand and in transit	751,062	1,096,503	10,074	864,648
Total cash	$ 1,061,748	$ 1,407,189	$ 175,618	$ 1,182,591

The on-hand and in-transit funds consist primarily of passenger revenue funds collected but not yet deposited and petty cash.

4. MTA INVESTMENT POOL

The MTA, on behalf of MTA Bus, invests funds which are not immediately required in MTA Bus's operations in securities permitted by the State Public Authorities Law, including repurchase agreements collateralized by U.S. Treasury securities, U.S. Treasury notes, and U.S. Treasury zero coupon bonds. All investments are held by MTA's agent, in custody accounts, in the name of the MTA. MTA Bus categorizes its fair value measurement within the fair value hierarchy established by U.S. GAAP. The hierarchy is based on the valuation inputs used to measure fair value of the assets. Level 1 inputs are quoted prices in an active market for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs. MTA Bus's investment in the MTA Investment Pool is valued based on other observable inputs (Level 2 inputs).

MTA Bus's earnings from short term investments were $1,061,574 and $598,422 for the years ended December 31, 2019 and 2018, respectively. At December 31, 2019 and 2018, MTA Bus had intercompany investment pool balaces of $10.7 million and ($86.3) million, respectively, reported in the Statements of Net Position, which were attributable to the timing of subsidy payments from The City for working capital expenditures.

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5. CAPITAL ASSETS

Capital assets as of December 31, 2019 and 2018, consist of the following (in whole dollars):

	December 2018	Additions	Cost Adjustments	Transfers / disposals	December 2019
Depreciable Assets					
Buses	$ 631,208,378	$ 33,475,894	$ 16,213	-	$ 664,700,485
Service Vehicles	3,219,367	-	-	(111,631)	3,107,736
Furniture, fixtures and equipment	18,704,710	7,312,250	-	-	26,016,960
Facilities & Yards	16,802,272	-	-	-	16,802,272
Capital Non Bus	177,103,377	46,851,377	1,244,936	-	225,199,689
	847,038,104	87,639,521	1,261,149	(111,631)	935,827,142
Non-Depreciable Assets					
Assets under construction	50,708,052	74,946,970	(2,238,349)	(87,639,521)	35,777,153
Total	$ 897,746,156	$ 162,586,491	$ (977,200)	$ (87,751,152)	$ 971,604,295

	December 2018	Additions	Cost Adjustments	Transfers / disposals	December 2019
Accumulated Depreciation					
Buses	$ (506,224,606)	$ (25,515,157)	-	-	$ (531,739,763)
Service Vehicles	(2,145,646)	(278,190)	-	111,631	(2,312,206)
Furniture, fixtures and equipment	(7,325,383)	(4,729,523)	-	-	(12,054,906)
Facilities & Yards	(13,170,297)	(515,787)	-	-	(13,686,084)
Capital Non Bus	(29,274,149)	(13,663,898)	-	-	(42,938,047)
Total	(558,140,081)	(44,702,556)	-	111,631	(602,731,006)
Net Capital Assets	**339,606,075**	**117,883,935**	**(977,200)**	**(87,639,521)**	**368,873,289**
TOTAL CAPITAL ASSESTS	$ 339,606,075	$ 117,883,935	$ (977,200)	$ (87,639,521)	$ 368,873,289

Capital assets as of December 31, 2018 and 2017, consist of the following (in whole dollars):

	December 2017	Additions	Cost Adjustments	Transfers / disposals	December 2018
Depreciable Assets					
Buses	$ 631,630,202	$ -	$ 38,790	$ (460,614)	$ 631,208,378
Service Vehicles	3,124,808	382,786	-	(288,227)	3,219,367
Furniture, fixtures and equipment	13,345,975	7,022,634	-	(1,663,899)	18,704,710
Facilities & Yards	19,922,236	-	-	(3,119,964)	16,802,272
Capital Non Bus	154,248,865	19,834,807	3,019,705	-	177,103,377
	822,272,086	27,240,227	3,058,495	(5,532,704)	847,038,104
Non-Depreciable Assets					
Assets under construction	34,651,510	46,323,383	(119,399)	(30,147,442)	50,708,052
Total	$ 856,923,596	$ 73,563,610	$ 2,939,096	$ (35,680,146)	$ 897,746,156

	December 2017	Additions	Cost Adjustments	Transfers / disposals	December 2018
Accumulated Depreciation					
Buses	$ (468,236,299)	$ (38,448,921)	$ -	$ 460,614	$ (506,224,606)
Service Vehicles	(2,169,313)	(264,560)	-	288,227	(2,145,646)
Furniture, fixtures and equipment	(6,617,887)	(2,371,394)	-	1,663,899	(7,325,383)
Facilities & Yards	(15,756,497)	(533,763)	-	3,119,964	(13,170,297)
Capital Non Bus	(17,872,087)	(11,402,062)	-	-	(29,274,149)
Total	(510,652,084)	(53,020,701)	-	5,532,704	(558,140,081)
Net Capital Assets	**346,271,513**	**20,542,909**	**2,939,096**	**(30,147,442)**	**339,606,075**
TOTAL CAPITAL ASSESTS	$ 346,271,513	$ 20,542,909	$ 2,939,096	$ (30,147,442)	$ 339,606,075

6. EMPLOYEE BENEFITS:

Pensions — MTA Bus participates in a defined benefit pension plan for their employees, the Metropolitan Transportation Authority Defined Benefit Plan (the "MTA Defined Benefit Plan"). A brief description of the pension plan follows:

Plan Description

MTA Defined Benefit Plan —

The MTA Defined Benefit Pension Plan (the "MTA Plan" or the "Plan") is a cost sharing, multiple-employer pension plan. The Plan covers certain MTA Long Island Rail Road non-represented employees hired after December 31, 1987, MTA Metro-North Railroad non-represented employees, certain employees of the former MTA Long Island Bus hired prior to January 23, 1983, MTA Police, MTA Long Island Rail Road represented employees hired after December 31, 1987, certain MTA Metro-North Railroad represented employees, MTA Staten Island Railway represented and non-represented employees and certain employees of MTA Bus Company ("MTA Bus"). MTA Long Island Rail Road, MTA Metro-North Railroad, MTA, 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 which is comprised of the Chairman of the MTA, MTA Chief Financial Officer, MTA Director of Labor Relations and the agency head of each participating Employer. The MTA Plan may be amended by action of the MTA Board.

A stand-alone financial report may be obtained by writing to the MTA Comptroller, 2 Broadway, 16th Floor, New York, New York, 10004. Pension plan financials can also be found at www.mta.info.

Benefits Provided

MTA Defined Benefit Plan

Pension Benefits — 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 sixty-five.

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 sixty-two.

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.

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 ten years of covered MTA Bus service; ten 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 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 is payable upon death on behalf of a non-vested participant or vested participant whose pension rights were waived.

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.

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

Contributions and Funding Policy

MTA Defined Benefit Plan

MTA Bus’s 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 Plan are recognized in the period in which the contributions are due. The following summarizes the types of employee contributions made to the Plan.

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 per week. Non-represented employees at Eastchester hired prior to 2007 contribute $25 per week. Represented employees at Baisley Park, College Point, Eastchester, Far Rockaway, JFK, LaGuardia and Yonkers Depots contribute $29.06 per week; Spring Creek represented employees contribute $32.00 per week. Certain limited number of represented employees promoted prior to the resolution of a bargaining impasse continue to participate in the 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.

Contributions for year ended December 31, 2019 and 2018 were $59.8 million and $57.3 million, respectively. These costs represent the required actual contributions for the year stated.

Contributions as a percent of covered payroll are 16.3% and 15.6%, for the year ended December 31, 2019 and 2018, respectively.

Net Pension Liability

MTA Bus's net pension liability reported at December 31, 2019 was measured as of December 31, 2018. The total pension liability for the Plan was determined as of the actuarial valuation date of January 1, 2018, and rolled forward to the measurement date of December 31, 2018. MTA Bus's net pension liability reported at December 31, 2018 was measured as of December 31, 2017 and the total pension liability for the Plan was determined as of the actuarial valuation date of January 1, 2017, and rolled forward to the measurement date of December 31, 2017. The fiduciary net position and additions to and deductions from the fiduciary net position have been determined on the same basis as reported by NYCERS. For this purpose, benefits and refunds are recognized when due and payable in accordance with the terms of the Plan; and investments are reported at fair value.

MTA Bus's net pension liability increased $135.20 million from the prior year due to Arbitration Awards and MOU's between MTA Bus and ATU Local 1179/1181 and TSO Local 106 that provide enhanced benefits to covered employees.

Actuarial Assumptions

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

Valuation Date:	MTA Defined Benefit Plan January 1, 2018	 January 1, 2017
Investment Rate of Return	7.00% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.
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.
Inflation	2.50%; 3.50% for Railroad Retirement Wage Base.	2.50%; 3.50% for Railroad Retirement Wage Base.
Cost-of Living Adjustments	55% of inflation assumption or 1.375%, if applicable.	55% of inflation assumption or 1.375%, if applicable.

Mortality: 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. They reflect mortality improvements both before and after the measurement date.

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

Post-retirement Healthy Lives: 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 valuations was the RP-2014 Disabled Annuitant mortality table for males and females.

Expected Rate of Return on Investments

The long-term expected rate of return on pension plan investments was 7.00% for the MTA Defined Benefit Plan. The best-estimate range for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation.

The target allocation and best estimates of arithmetic real rates of return (RROR) for each major asset class included in each of the pension funds are as follows:

Asset Class	MTA Defined Benefit Plan Target Asset Allocation	 Long-Term Expected Real Rate of Return
US Core Fixed Income	9.00%	2.03%
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%	
Assumed Inflation - Mean		2.50%
Assumed Inflation - Standard Deviation		1.65%
Portfolio Nominal Mean Return		7.19%
Portfolio Standard Deviation		10.87%
Long Term Expected Rate of Return selected by MTA		**7.00%**

Discount Rate

As of December 31, 2019 and 2018, the discount rate used to measure the total pension liability of the MTA Defined Benefit Plan was 7.0%.

The projection of cash flows used to determine the discount rate assumed that plan contributions will be made in accordance with the Employer funding policy as projected by the Plan's actuary. Based on those assumptions, the 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 projected benefit payments to determine the total pension liability.

MTA Bus's Proportion of Net Pension Liability – MTA Defined Benefit Plan

The following table presents MTA Bus's proportionate share of the net pension liability of the MTA Defined Benefit Plan at December 31, 2019, and 2018, and the proportion percentage of the net pension liability of the MTA Defined Benefit Plan allocated to MTA Bus:

	2019	2018
	(in millions, except for %)	
MTA Bus's proportionate share of the net pension liability	$ 301.79	$ 166.59
MTA Bus's proportion of the net pension liability	17.11%	16.45%

MTA Bus's proportion of the respective Plan's net pension liability was based on actual required contributions of the participating employer for the fiscal year.

The following table presents MTA Bus's proportionate share of the net pension liability calculated using the discount rate of 7.00% for the MTA Defined Benefit Plan, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.0%) or 1-percentage point higher (8.0%) than the current rate:

MTA Bus's proportionate share of the net pension liability	1% Decrease (6.0%)	Current Discount Rate (7.0%)	1% Increase (8.0%)
		(in millions)	
2019	491.17	$ 301.79	146.70
2018	271.13	166.59	80.98

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

For the years ended December 31, 2019 and 2018, MTA Bus recognized pension expense of $111.5 million and $43.2 million respectively, related to the pension plan. The 2019 expense was higher Arbitration Awards and MOU's between MTA Bus and ATU Local 1179/1181 and TSO Local 106 that provide enhanced benefits to covered employees.

At December 31, 2019 and 2018, MTA Bus reported deferred outflow of resources and deferred inflow of resources for each pension plan as follows:

	2019		2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 31,003	$ (3,491)	$ 23,243	$ (3,907)
Changes in assumptions	1,382	(6,350)	1,547	(7,712)
Net difference between projected and actual earnings on pension plan investments	38,735	-	-	(18,571)
Changes in proportion and differences between contributions and proportionate share of contributions	-	(36,724)	-	(50,989)
Employer contribution to plan subsequent to the measurement date of net pension liability	59,769	-	57,264	-
Total	$ 130,889	$ (46,565)	$ 82,054	$ (81,179)

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 annual differences between expected and actual experience and the changes in proportion and differences between employer contributions and proportionate share of contributions are amortized over the weighted average remaining service life of all members, beginning the year in which the deferred amount occurs.

$59.8 million reported as deferred outflows of resources related to pensions resulting from MTA Bus's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year-ended December 31, 2020. 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 (not in thousands):

Year ending December 31:	
2019	$ 10,992,940
2020	2,110,876
2021	3,435,587
2022	13,230,765
2023	(3,133,550)
Thereafter	(2,080,842)
Total	$ 24,555,776

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, pay for the administrative cost of running the Deferred Compensation Program.

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

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 Target-Year Lifecycle Funds, which are comprised of a mix of several funds, most of which are available as separate investments in the Deferred Compensation Program. The particular mix of investments for each Fund is determined by the "target" date, which is the date the money is intended to be needed for retirement income.

- 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 Russell Mid Cap Index.

- 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 a selected index. These institutional strategies provide participants with a diversified array of distinct asset classes, with a single fund option in each class to simplify the decision making process.

- Tier 4 – Self-Directed Mutual Fund Option is designed for the more experienced investors. 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 or $25,000 for those over age 50 for the year ending December 31, 2019.

The two Plans offer the same array of investment options to participants. Eligible participants for 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 - 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. The contributions for the years ended December 31, 2019 and 2018 were $1,221 and $41,611, respectively. These members shall vest in the amount in the member's account attributable to the matching contributions and basic contributions as follows:

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

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

Forfeitures – Nonvested contributions are forfeited upon termination of employment. For the year ended December 31, 2019 and 2018, no forfeiture money was used to offset the employer contributions or for plan expenses.

The Trustee for the MTA Deferred Compensation Program is Prudential Bank & Trust FSB. Recordkeeper and/or Administrative Services are provided by Prudential Retirement Insurance & Annuity Company ("PRIAC"). Investment management services are provided by Prudential Retirement Insurance & Annuity Company and Galliard Capital Management: separate accounts are managed by Denver Investment Advisors Conestoga Capital Advisors and TCW-Metropolitan West Asset Management. Financial Advisor Mercer reviews the investment policies as stipulated by the Investment Committee, the Plans' portfolios and the Investment Managers' performance.

7. OTHER POST EMPLOYMENT BENEFITS

MTA Bus 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 and related agencies retired employees and their eligible spouses and dependents, to fund some of the OPEB provided in accordance with MTA Bus'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 cost-sharing multiple-employer defined benefit OPEB plan.

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

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

Benefits Provided — The benefits provided by the OPEB Plan include medical, pharmacy, dental, vision, life insurance and a Medicare supplemental plan. The different types of benefits provided vary by agency, employee type (represented employees versus non-represented) and the relevant collective bargaining agreements. Certain benefits are provided upon retirement as defined in the applicable pension plan. Certain agencies provide benefits to certain former employees if separated from service within 5 years of attaining retirement eligibility. Employees of MTA Bus are members of the MTA Defined Benefit Plan.

The MTA Bus Company 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. 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 Bus Company 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 MTA Bus must:

(a) have retired;

(b) be receiving a pension (except in the case of the 401(k) Plan);

(c) have at least 10 years of credited service as a member of the MTA Defined Benefit Plan; and

(d) 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

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.

Contributions — MTA Bus is not required by law or contractual agreement to provide funding for the OPEB Plan, other than the “pay-as-you-go” (“PAYGO”) amounts. PAYGO is the cost of benefits necessary to provide the current benefits to retirees and eligible beneficiaries and dependents. Employees are not required to contribute to the OPEB Plan. The OPEB Plan Board has the authority for establishing and amending the funding policy. For the year-ended December 31, 2019, the MTA Bus paid $29.3 million of PAYGO to the OPEB Plan.

During 2012, the MTA funded $250 million into the Trust an additional $50 million during 2013. There have been no further contributions made to the Trust. The discount rate estimates investment earnings for assets earmarked to cover retiree health benefits. Under GASB Statement No. 75, the discount rate depends on the nature of underlying assets for funded plans. Since the amount of benefits paid in 2017 exceeded the current market value of the assets, a depletion date is assumed to occur immediately. Therefore, the discount rate is set equal to the municipal bond index. The MTA elected the Bond Buyer General Obligation 20-Bond Municipal Bond Index. As a result, the discount rates as of December 31, 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 year ended December 31, 2018, the employer made a cash payment for retiree healthcare of $975 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**
Total blended premiums	27,364
Employment payment for retiree healthcare	975
Net Payments	**28,339**

(2) Net OPEB Liability

At December 31, 2019, MTA Bus reported a net OPEB liability of $633.6 million for its proportionate share of the Plan's net OPEB liability. The 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. MTA Bus's proportion of the net OPEB liability was based on a projection of MTA Bus's long-term share of contributions to the OPEB Plan relative to the projected contributions of all participating employers. At December 31, 2019, MTA Bus's proportion was 3.24%.

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 are 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.

(3) Actuarial Assumptions

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

Projections of benefits for financial reporting purposes are based on the substantive plan, which refers to the plan terms as understood by the employer and the plan members at the time of the valuation, including only changes to plan terms that have been made and communicated to employees. The projections include the types of benefits provided at the time of each valuation and the historical pattern of sharing benefit costs between the employer and plan members at that time. MTA Bus 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, the measurement date. The actuarial valuations were performed using the following actuarial assumptions, applied to all periods included in the measurement, unless specified:

Valuation date	July 1, 2017
Measurement date	December 31, 2017
Discount rate	4.10%, net of expenses
Inflation	2.50%
Actuarial cost method	Entry Age Normal
Amortization method	Level percentage of payroll
Normal cost increase factor	4.50%
Salary Increases	3.50%
Investment rate of return	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. The NYSHIP trend reflects actual increases in premiums to participating agencies through 2018. Long-term trend increases are 4% for dental and vision benefits and 4.5% for Medicare Part B reimbursements of an annual trend of 4.5%, but not more than projected medical trends excluding any excise tax adjustments. The self-insured trend is applied directly for represented employees of MTA Bus.

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

Trend from	NYSHIP		MTA Bus	
Year Ending	< 65	>=65	< 65	>=65
2018	8.5	8.2	6.8	9.1
2019	6.2	5.5	6.2	5.3
2020	5.8	5.3	5.8	5.2
2021	5.5	5.2	5.5	5.2
2022	7.2	5.1	11.1	5.1
2023	6.1	5.1	6.0	5.1
2024	6.1	5.0	5.9	5.0
2025	5.9	5.0	5.8	5.0
2026	5.9	5.0	5.8	5.0
2027	5.8	4.9	5.7	4.9
2037	5.6	5.0	5.5	5.0
2047	5.4	5.9	5.3	4.9
2057	5.1	5.4	5.1	5.2
2067	4.8	5.0	4.8	4.8
2077	4.2	4.3	4.1	4.5
2087	4.1	4.2	4.1	4.4
2097	4.1	4.2	4.1	4.4

For purposes of applying the EntryAge 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, 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 post-retirement 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.

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.

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

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	Real Rate of Return
US 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-US Equity	15.0%	6.44%
Global REITs	5.0%	5.80%
Hedge Funds - MultiStrategy	12.0%	3.28%
Total	**100%**	
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%.

Sensitivity of MTA Bus's Proportionate Share of the Net OPEB Liability to Changes in the Discount Rate — The following presents MTA Bus's proportionate share of the net OPEB liability, as well as what MTA Bus's proportionate share of the 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:

	1% Decrease (3.10%)	Discount Rate (4.10%)	1% Increase (5.10%)
		(in millions)	
Proportionate share of the net OPEB liability	$ 724.81	$ 633.57	$ 558.34

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

	1% Decrease	Healthcare Cost Current Trend Rate *	1% Increase
		(in millions)	
Proportionate share of the net OPEB liability	$ 541.20	$ 633.57	$ 749.67

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

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

For the year ended December 31, 2019 and 2018, MTA Bus recognized OPEB expense of $46.7 million and $64.5 million respectively, which represents its proportionate share of the Plan's OPEB expense.

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, changes in assumptions and the changes in proportion and differences between employer contributions and proportionate share of contributions are amortized over a 7.4 year closed period, beginning the year in which the deferred amount occurs.

At December 31, 2019 and 2018, MTA Bus reported deferred outflows of resources and deferred inflows of resources related to OPEB as follows:

	2019		2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 321	$ (543)	$ 399	$ -
Changes in assumptions	21,521	(50,375)	26,756	-
Net difference between projected and actual earnings on OPEB plan investments	601	-	-	(716)
Changes in proportion and differences between contributions and proportionate share of contributions	-	(31,427)	-	-
Employer contribution to plan subsequent to the measurement date of net OPEB liability	29,256	-	23,212	-
Total	$ 51,699	$ (82,345)	$ 50,367	$ (716)

For the year ended December 31, 2019, $51.7 million was reported as deferred outflows of resources related to OPEB. This amount includes both MTA Bus'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 (not in thousands):

Year ending December 31:	
2020	$ 8,714,016
2021	8,714,016
2022	8,714,016
2023	8,543,326
2024	8,821,506
Thereafter	16,394,957
	$ 59,901,837

8. DUE TO NYCTA

NYCTA bills MTA Bus for the administration and payment of health and welfare claims, for materials and supplies issued from NYCTA storerooms, and for NYCTA employees that have been permanently assigned to MTA Bus. In addition, MTA Bus is charged for the cost of labor and overhead for operating support (mainly NYCTA Department of Buses) and for employees assigned to MTA Bus to perform facilities related maintenance, construction and repair work.

9. EXISTING CAPITAL FUNDING ARRANGEMENTS

MTA Bus capital projects included in the MTA 2000-2004 Capital Program and the MTA 2005-2009 Capital Program are being funded from a combination of interagency loans and MTA Transportation Revenue Bond proceeds. The interagency loans consist of a $76.6 million loan to MTA Bus from MTA New York City Transit and a $37.1 million interagency loan from MTA capital funds. MTA has agreed to reimburse MTA Bus for the debt service on such interagency loans over a twelve-year period beginning in 2007. The amount of Federal grants and The City matching funds included in the MTA 2000-2004 Capital Program is $171.5 million and the amount of Federal grants and The City matching funds included in the MTA 2005-2009 Capital Program is $152.0 million, for an aggregate of $323.5 million. Because MTA Bus was unable to use the Federal grants and The City matching funds directly, they were assigned to MTA New York City Transit to fund a portion of its capital program. MTA New York City Transit agreed to reimburse MTA Bus for the debt service on an equal amount of MTA Transportation Revenue Bonds that were issued to finance MTA Bus capital projects that otherwise would have been funded with the Federal grants and The City matching moneys if they were available for such use.

In December 2007, the MTA Board approved a funding agreement whereby, in 2019, MTA Bus received $12.3 million in MRT-2 monies. Pursuant to the agreement, MTA Bus made monthly payments to the MTA and NYCTA over an amortization period of 12 years. As of December 31, 2018, the outstanding principal balance of the intercompany capital pool loan amounted to $0.0.

10. ESTIMATED LIABILITY ARISING FROM INJURIES TO PERSONS

MTA Bus establishes its liability for injuries to persons, excluding employees, on the basis of independent actuarial estimates of future liability. A summary of activity in estimated liability arising from injuries to persons and damage to third-party property, for the years ended December 31, 2019 and 2018, is as follows:

	2019	2018
Balance — beginning of year	$ 225,597	$ 190,429
Activity during the year:		
Current year claims and changes in estimates	78,784	61,798
Claims paid	(44,964)	(26,629)
Balance — end of year	259,417	225,597
Less — current liability	(36,000)	(30,000)
Noncurrent liability	$ 223,417	$ 195,597

Not included in the 2019 and 2018 amounts are $18.5 and $17.0 million of current liability and $131.2 and $125.2 million of non current liability related to employees.

11. CONTINGENCIES

Neither the MTA nor its Component Unit, MTA Bus, assumed any liability for claims, suits, and any other pending litigation matters arising from or in connection with the operation of the former seven privately franchised bus companies prior to their merger dates into MTA Bus. Beginning January 3, 2006, and on each of the three merger dates occurring thereafter (Green Bus on January 9, 2006, Jamaica Bus on January 30, 2006, and Triboro Coach on February 2006), MTA Bus assumed responsibility for all liability claims arising from operating the former City bus routes. Legal counsel to MTA Bus believes that there is no litigation or claims that could have a material effect on the financial position of MTA Bus.

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 questioned costs may occur, ultimate repayments required of MTA Bus have been infrequent in prior years.

12. ENVIRONMENTAL POLLUTION REMEDIATION

MTA Bus implemented GASB Statement No. 49 in 2008. In accordance with GASB Statement No. 49, a pollution remediation expense provision totaling $1,664,294 and a corresponding liability were recorded on the Statements of Net Position and the Statements of Revenues, Expenses and Changes in Net Position. As of December 31, 2019 and 2018, the pollution remediation liability totaled $11.5 million and $11.6 million, respectively, primarily consisting of future remediation activities associated with asbestos removal, lead abatement, ground water contamination, soil contamination, and arsenic contamination at MTA Bus. MTA Bus does not anticipate any changes in the near future that would have a material impact on the recorded obligations due to changes resulting from price increase or reduction, technology, or changes in applicable laws or regulations. In addition, MTA Bus does not expect any recoveries of cost that would have a material effect on the recorded obligations.

During 2005, environmental consultants, on behalf of the New York City Department of Design performed on site investigation at the former Green, Jamaica and Triboro Coach Bus lines prior to their merger into MTA Bus. As a result of the site investigations, these depots were found to require extensive soil and groundwater remediation. The Transit Authority's Capital Programs Management Environmental Engineering Division estimated that the cost to remediate the contaminated sites would total approximately $4.3 million. During 2006, the New York State Department of Environmental Conservation issued stipulation and consent decrees requiring MTA Bus to commence soil and ground water remediation at the College Point and Eastchester depots. The estimated cost for cleanup efforts at these sites was approximately $2.0 million. Pursuant to the letter agreement between The City and the MTA, remediation costs will be reimbursable by The City and, as such, a reserve for environmental remediation was not recorded in MTA Bus's financial statements. As stated in Note 2, The City funded the $6.3 million in estimated costs for potential environmental remediation. During 2011, The City requested an update on proposed remediation projects and subsequently funded an additional $11.1 million. At December 31, 2019, the Environmental Remediation Reserve fund had a balance of $6.5 million remaining for future Environmental projects.

	2019	2018
Balance beginning of year	$ 11,641	$ 12,059
Activity during the year:		
Current year changes in estimates	861	(34)
Payments	(959)	(384)
Balance end of year	11,543	11,641
Less - current liability	(6,501)	(7,304)
Non current liability	$ 5,042	$ 4,337

13. RELATED PARTY TRANSACTIONS

MTA Bus receives support from MTA in the form of budget, cash management, finance, legal, real estate, treasury, risk and insurance management, and other services, some of which are charged back. Funds for MTA Bus's capital project expenditures are also provided by MTA. MTA Bus recognizes funds contributed by MTA for MTA Bus's capital project expenditures as contributed capital.

Due from/to MTA and affiliated agencies consists of the following at December 31, 2018 and 2017:

	2019		2018	
	Receivable	(Payable)	Receivable	(Payable)
MTA	$ 62,789	$ 21,663	$ 38,364	$ 117,324
Affiliated agencies	11,576	30,619	8,753	32,300
Total MTA and affiliated agencies	$ 74,365	$ 52,282	$ 47,117	$ 149,624

14. SUBSEQUENT EVENTS

UPDATED ASSESSMENT OF IMPACTS FROM THE COVID-19 PANDEMIC ON MTA AND MTA BRIDGES AND TUNNELS FINANCES AND OPERATIONS

- ***Background Relating to the Global Coronavirus Pandemic.*** The novel coronavirus ("COVID-19") outbreak is continuing to have an adverse and severe impact on MTA's financial condition and operating results. 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 12, 2020, the World Health Organization declared the COVD-19 outbreak to be a pandemic in the face of the global spread of the virus. The COVID-19 pandemic has dramatically altered the behavior of businesses and people in a manner that is having negative effects on global and local economies. In addition, stock markets in the U.S. and globally, have seen significant declines and volatility attributed to concerns over COVID-19, and capital markets remain disrupted. These adverse impacts have intensified and continue to evolve daily globally, nationally, and particularly within the State and MTA's service area, which has become the most severely impacted region in the United States, with the most confirmed cases of infection and regrettably the most fatalities from COVID-19. On March 7, 2020 Governor Cuomo declared a Disaster Emergency in the State of New York and on March 13, 2020 President Trump declared a national state of emergency as a result of the COVID-19 pandemic. In addition, by order of Governor Cuomo ("New York State on PAUSE"), as of Sunday, March 22nd, all non-essential businesses Statewide were required to be closed, among other restrictive social distancing and related measures. These related measures, most recently, include by Governor's Executive Order, that effective at 8 p.m. on Friday, April 17, 2020 any individual who is over age two and able to medically tolerate a face-covering shall be required to cover their nose and mouth with a mask or cloth face-covering when in a public place and unable to maintain, or when not maintaining, social distance. New York State on PAUSE restrictions remain in place at least through May 15, 2020. This intervention to fight the aggressive spread of the COVID-19 pandemic has further eroded already severely diminished public transportation and bridge and tunnel usage during the duration of the COVID-19 pandemic.

- ***Currently Adopted Federal Legislative and Administrative Actions.*** The Federal government has taken several actions which are expected to provide flexibility and substantial additional funding to MTA. The Federal Transit Administration ("FTA") has given transit grantees, including MTA, the flexibility to apply certain existing grant program proceeds, previously only available for capital expenditures, to be applied for operating expenses or other purposes to address COVID-19 pandemic impacts.

  In addition, Federal emergency legislation, the "Coronavirus Aid, Relief and Economic Security Act" or "CARES Act", received final passage by Congress and was signed into law by the President on March 27, 2020. The CARES Act through FTA's formula funding provisions is expected to provide approximately $3.8 billion to MTA. Funding will be provided at a 100 percent Federal share, with no local match required, and will be 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.
  MTA is also eligible for FEMA payments in addition to the CARES Act funding. FEMA will cover expenses that are over and above normal costs that are related to COVID-19, such as sanitizing MTA facilities and safety at job sites to ensure COVID -19 regulations are being adhered to.

- ***Updated Assessment of 2020 Impacts of the COVID-19 Pandemic and Economic Study Analysis.*** On April 16, 2020, MTA Chairman and Chief Executive Officer Patrick J. Foye wrote to the New York State Congressional delegation, urging Congressional action to provide an additional $3.9 billion in Federal grant assistance "to stem the immediate hemorrhaging in the MTA's 2020 operating budget". Such aid would be supplemental to the approximately $3.8 billion contained in the CARES Act, and would have to be included in any upcoming new Congressional COVID-19 aid package, and is also exclusive of any capital infrastructure stimulus funding to be considered by Congress and the Administration.

  The CARES Act funding amounts for MTA derived from a conservative estimate based on the information MTA management had at the time. A clearer picture of the impact of the crisis has emerged over the last few weeks, and now with the aid of a detailed economic study led by McKinsey & Company (the "McKinsey Report"), MTA management projects the full 2020 financial impact of the COVID-19 crisis to the MTA to be between $7.0 and $8.5 billion. After the receipt of the expected $3.8 billion under the CARES Act, the net financial impact in 2020 is estimated to be between $3.2 and $4.7 billion. The $3.9 billion request is the midpoint of this range.

  Compared to 2019 results, ridership has now declined 93 percent on the subways, 95 percent on MTA Metro-North Railroad, and 97 percent on the Long Island Rail Road, with equally reduced ridership on buses. Crossings at MTA Bridges and Tunnels facilities are down by an estimated 62% from 2019 figures. Based on the current ridership and reasonable forecasts of a slow return to higher (but not pre-COVID-19 pandemic) levels in 2020, MTA, based upon projections in the McKinsey Report, expects to see combined losses in fare and toll revenues of between $4.7 and $5.9 billion in 2020, and additional impacts in 2021. Projections for 2021 are of necessity more speculative at this time and were beyond the scope of the McKinsey Report.

  Moreover, the McKinsey Report, based upon limited available data, forecasts losses of between $1.6 and $1.8 billion in State and local taxes dedicated to MTA in 2020 as a result of the extraordinary economic downturn facing the region and nation.

  Finally, MTA is also incurring additional expenses related to ensuring the safety of employees and riders, by disinfecting stations, rolling stock and work spaces to a new, even more costly level. The McKinsey Report estimates these incremental operational expenses for 2020 to be between $700 and $800 million (inclusive of a portion of the $300 million COVID-19 annualized costs estimate referred to in the March 25th Supplement). The dedication of MTA workers has come at the highest cost in illness and loss of life. Eighty-three MTA employees have tragically passed away due to COVID-19. MTA New York City Transit alone has more than 2,400 subway and bus employees who have tested positive for COVID-19. Another 4,400 are on home quarantine and thousands more are calling out sick. MTA does not expect those overhead costs to decline, but instead to increase as ridership returns.

  The McKinsey Report provided an estimate of the shortfalls discussed below through the end of calendar year 2020, ranging between $3.2 and $4.7 billion after accounting for the $3.8 billion the MTA is expected to receive through the CARES Act.

  By way of background to the McKinsey Report forecasts, on March 17, 2020, five days before the stay-at-home order went into effect for New York State, MTA projected that it would face a 2020 budget shortfall of at least $4 billion in fare and toll revenues, based upon then current ridership and bridge and tunnel crossings declines. This estimate explicitly did not take into account the impact of the COVID-19 pandemic on taxes and other dedicated revenue streams that support MTA's operations. Approximately, one month later, it is now clear that the COVID-19 pandemic is more severe and of longer duration than had been anticipated. The impact to MTA's finances is material and leaves a gap that must be filled in order to sustain normal operations. MTA has begun refining the fare and toll revenue loss projections to reflect these changes, as well as projecting losses in the tax and other subsidy revenues that generally make up approximately one-half of MTA's total revenue sources. McKinsey & Company was contracted by MTA to analyze the potential impact of the COVID-19 pandemic on MTA's 2020 calendar year revenues.

As noted above, this analysis did not attempt to capture the impact of the COVID-19 pandemic on MTA finances in 2021. A view of 2021 will need to be developed when the key factors that influence it; the course of the virus, public health responses, including social isolation measures, and the trajectory of the economic recovery, can be seen with greater clarity. The McKinsey Report focused on operating costs and did not make any assumptions related to additional capital expenditures that MTA may incur over the course of the COVID-19 pandemic. It is limited to giving an initial view of additional operating costs.

In general, the McKinsey Report reviewed two scenarios for how revenues may be affected in the full calendar year 2020. The scenarios developed reflected different assumptions for how transit and commuter rail ridership and bridge and tunnel traffic will behave across several variables. The report further analyzed MTA's dedicated revenue streams and the impact of the COVID-19 pandemic on the variety of economic activity that generates much of the dedicated tax component of this revenue stream. The estimated incremental negative revenue impacts on MTA, after accounting for the CARES Act assistance of $3.8 billion, ranged from $3.2 billion to $4.7 billion. The midpoint between these two scenarios, $3.9 billion, was selected as the basis of MTA's April 16th request to Congress.

There is substantial risk that the higher end of the range could materialize based on uncertainties in the course of the COVID-19 pandemic, the speed of development and mass promulgation of high-volume clinical testing and protocols, the availability of medical supplies and equipment, continued public adherence to protective policies, and Federal policy response.

- ***MTA Liquidity Resources***. MTA currently has liquidity resources, consisting of a current running cash balance, internal available flexible funds, OPEB resources and commercial bank lines of credit totaling $1.201 billion ($1.0 billion of which has been drawn). *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.*

  Longer-term resource options to address the COVID-19 pandemic impacts, may include, but are not limited to, (i) approximately $4 billion in federal emergency transit grants pursuant to the CARES Act, (ii) replacing programmed pay-as-you-go capital funds with long term bonding, (iii) various debt restructuring options generating potential resources depending upon market conditions and other matters, and (iv) applying new, federal FTA grant flexibility rules to use in the current federal fiscal year for operating relief in the emergency. The MTA Board on March 25, 2020 authorized MTA to secure an additional $2 billion in commercial bank lines of credit market conditions permitting. Also, see the additional significant financial assistance and flexibility provided in the State's FY 2020-21 Enacted Budget. There can be no assurance that MTA will be successful in securing additional lines of credit.

  As noted above, exercising these options would come at a cost, including increased longer-term borrowing and potential adverse impacts on the timing of MTA initiatives to improve its systems. The loss of farebox and toll revenues, potential declines in State and local, as well as reprogramming of available federal and possibly State generated funding support for capital purposes, to urgent financial needs, will result in delays and shortfalls in implementing Capital Plan projects. The full impact of the COVID-19 pandemic on Capital Plan implementation cannot be determined at this time.

Finally, as is provided in the February Plan, MTA relies in State and local subsidies and dedicated taxes. The financial stress which MTA is experiencing as a result of the COVID-19 pandemic is being similarly felt at all levels of the government and in the social and financial lives of MTA patrons and State and local residents. This can be expected to have a substantial adverse impact on State and local revenues, on dedicated tax collections, and thus on the capacity of the State and local governments to maintain or raise the level of financial support to MTA during this crisis.

- ***NY Essential Service Plan.*** On March 24, 2020, MTA management announced the implementation of the "NY Essential Service Plan ("Service Plan")." The Service Plan is designed to ensure healthcare workers, first responders and essential personnel are able to get to and from work by public transportation. MTA New York City Transit, MTA Long Island Rail Road and MTA Metro-North Railroad have implemented temporary reduced service schedules.

  The Service Plan includes the following specific measures:

  - **Subways and Buses:** On the subways, beginning March 25, 2020, service reductions were implemented. The service changes preserve MTA New York City Transit's a.m. and p.m. peak service to get first responders and essential personnel to their destinations. Some lines will not run Monday through Friday, including the B, W and Z lines, which will be covered by other local service. Some express services and branches on some lines will operate only local service. MTA New York City Transit will continue to undertake a line-by-line, hour-by-hour analysis of ridership, retaining flexibility to increase service as necessary.

    The Service Plan for buses started on March 26, 2020. The plan retains 75 percent of normal bus service, allows the MTA to serve essential workers and reduce crowding on transit and in crew facilities. Customers who still need to use buses for essential activities will continue to be accommodated. At the same time, the maximum number of buses needed will be substantially reduced, requiring fewer operators and lessening crowding of depot facilities.

  - **Long Island Rail Road and Metro-North**: MTA Long Island Rail Road will have over 500 weekday trains running, compared to a normal weekday of over 740 trains, beginning March 27, 2020. MTA Long Island Rail Road will also have crews and equipment on standby to supplement service if necessary.

    Beginning on March 27, 2020, MTA Metro-North Railroad will provide hourly service on the Harlem, Hudson and New Haven lines, with extra trains added during peak times. Normal weekday capacity will be reduced by approximately 50 percent when compared to a normal weekday. The reduced schedule will run 424 trains, down from 713 during a normal schedule.

    Beginning the weekend of April 4/April 5, MTA Metro-North Railroad will provide hourly service while also suspending shuttle service between Wassaic and Southeast on the Upper Harlem line.

  - **Paratransit:** The paratransit program has eliminated shared rides, in accordance with the recommended public health guidance, and extended eligibility for existing Access-A-Ride customers. The paratransit system continues to have capacity to serve demand.

All of the foregoing service changes are described on MTA website, the MYmta app and on countdown clocks in stations and on platforms.

The schedule changes follow the Governor's "New York State on PAUSE" order, which directed New Yorkers use of public transportation for only essential travel and attempts to limit potential exposure by spacing out riders by six feet. MTA New York City Transit, MTA Bus Company, MTA Long Island Rail Road and MTA Metro-North Railroad continue their aggressive disinfecting procedures at each of its stations twice daily, and continue daily sanitization of its fleet of rolling stock with the full fleet of train cars and buses disinfected every 72 hours or less. The Access-A-Ride dedicated fleet is disinfected daily. Surfaces frequently used by customers in stations, such as turnstiles, MetroCard and ticket vending machines, and handrails, will be disinfected twice daily with EPA-approved and National Centers for Disease Control-endorsed disinfectants.

MTA is employing its pandemic plan, which is updated regularly, and serves as a blueprint guiding the MTA's response in accordance with Federal, State and local authorities. Through the end of March, MTA has distributed the following resources to operating employees: masks, gloves to those whose jobs require it, bottles of hand sanitizer, gallons of cleaning supplies and boxes of sanitizing wipes. Additionally, MTA continues to replenish and maintain a stockpile of these essential items so that MTA can continue to distribute them as needed. In addition, to these actions, MTA has taken a number of aggressive steps to ensure worker safety, including reducing the number of crews that need to report to work, implementing rear-door boarding to ensure social distance for bus operators, eliminating cash transactions and, as detailed above, disinfecting workplaces, trains, business and all rolling stock, among other actions. MTA is also working closely with the National Centers for Disease Control, the State Department of Health, and other government agencies during this time.

- ***Capital Plan Procurement and Construction Contract Delays***. MTA Construction and Development Company ("MTACDC") is currently evaluating the impacts of the COVID-19 pandemic on MTA's Capital Plans. MTACDC expects to reassess a path forward for implementation of the Capital Plans in the face of the COVID-19 pandemic in 60 days. In the meantime, MTACDC will cease the award of new Capital Plan construction or consulting contracts and, with few exceptions, MTACDC is, effective April 1, 2020, suspending action on open solicitations for all such contracts. With limited exceptions, the dates for submission of bids, requests for qualification and requests for proposals for open solicitations for MTACDC, or for any other capital budget-funded MTA projects, will be adjourned until further notice. Similarly, currently scheduled qualification hearings and pre-bid conferences have been cancelled and will be rescheduled as appropriate. The full impact of the COVID-19 pandemic on Capital Plan implementation cannot be determined at this time.

- ***New York State Fiscal Year 2020-21 Budget Provisions of Importance to MTA.*** Several provisions in the State's fiscal year 2020-21 budget (as passed by both the State Assembly and State Senate and signed by the Governor on April 3, 2020 the "State FY 2020-21 Enacted Budget"), are intended to provide significant financial assistance and flexibility to aid MTA in addressing the adverse impacts caused by the COVID-19 pandemic. Among the provisions in the State FY 2020-21 Enacted Budget addressing MTA's needs are the following:

(i) amends existing law to allow MTA to use monies in the Central Business District Tolling Lockbox Fund (the "CBD Tolling Lockbox Fund") for two years (2020 and 2021) to offset decreases in revenue (i.e. lost taxes, fees, charges, fares and tolls) or increases in operating costs due in whole or in part to the State emergency disaster caused by the COVID-19 pandemic. The CBD Tolling Lockbox Fund currently includes Internet sales tax revenue and mansion tax revenue that will be used for operations. In the future, CBD tolling revenue will be added when that program is up and running, although CBD tolling revenue may be restricted under Federal law to capital expenses. All revenues deposited in such fund were under prior law only available for capital costs of MTA's 2020-24 Capital Plan and successor capital plans, and costs of the Central Business District tolling program. This provision also provides that if MTA receives funds/reimbursements from Federal government or insurance due to the COVID-19 pandemic, MTA must repay the CBD Tolling Lockbox Fund, but only after it has first fully repaid any COVID-19 pandemic related public or private borrowings, draws on lines of credit; issuances of revenue anticipation notes, internal loans; or use of corpus of MTA's OPEB trust;

(ii) amends existing law to increase MTA's bond cap from $55.497 billion to $90.1 billion through 2024;

(iii) creates new authorization for MTA to issue up to $10 billion of bonds for three years (2020-2022) to offset decreases in revenue (i.e. lost taxes, fees, charges, fares and tolls) or increases in operating costs of the MTA and its Related Entities due in whole or in part to the State disaster emergency caused by the COVID-19 pandemic;

(iv) commits the State and the City to each pay $3 billion to fund capital costs of the MTA's 2020-2024 Capital Plan. Additionally,

- State's Director of the Budget will determine schedule for the City's payments of its $3 billion share to MTA,

- if the City does not pay in full any of its scheduled payments, the Director of the Budget shall require the State Comptroller to intercept aid to localities appropriations to the City, or any other revenue source of the City, including sales and use tax, in an amount equal to the City's unpaid balance and deposit it into a newly established State-held fund, the MTA Capital Assistance Fund, and

- the State Comptroller must pay monies deposited in the MTA Capital Assistance Fund to MTA without appropriation, and

(v) requires the City, beginning on July 1, 2020, to pay one-half of the MTA's net paratransit operating expenses for four years: 2020, 2021, 2022, and 2023, and provides a statutory mechanism to intercept funds otherwise available to the City to insure payment of the City's share, if necessary. The City's contribution for each of those years is capped in the law as follows: 2020: $215 million; 2021: $277 million; 2022: $290 million; and 2023: $310 million

- ***Dedication of 341-7 Madison Avenue Redevelopment Proceeds to MTA Capital Program.*** MTA and the City of New York announced on April 2, 2020, an agreement on a site-specific value capture strategy to speed development of 341-7 Madison Avenue, the site of the MTA's former headquarters in midtown Manhattan. Real estate taxes and other revenue generated from the future ground lease for the redevelopment of the property will be dedicated to the MTA capital program. The redevelopment plan is projected to generate more than $1 billion over the life of the ground lease to fund approved MTA New

York City Transit projects. The agreement is part of the City of New York's commitment to provide $600 million from alternative non-tax-levy revenue sources as part of its $2.66 billion contribution to MTA's 2015-2019 Capital Plan.

- ***COVID-19 Family Benefits Agreement***. On April 14, 2020, the MTA, Transport Workers Union Local 100 (TWU), the International Association of Sheet Metal, Air, Rail and Transportation Workers (SMART), and International Brotherhood of Teamsters Local 808 (IBT) reached an agreement on COVID-19 family benefits for transportation workers tragically lost in the pandemic. The benefits include a payment of $500,000 from the MTA to the surviving family of any worker who lost their life as a result of COVID-19, in addition to providing health insurance to the spouse and dependents to the age of 26 of the surviving family for three years. The MTA continues to have ongoing discussions with all labor partners to extend the COVID-19 family benefits agreement to all members of its represented workforce. The agreement will also be extended to all non-represented employees. The agreement is subject to Board ratification on April 22, 2020.

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

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REQUIRED SUPPLEMENTARY INFORMATION

MTA BUS COMPANY
(Component Unit of Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF MTA BUS'S PROPORTIONATE SHARE OF NET PENSION LIABILITY IN THE MTA DEFINED BENEFIT PLAN
FOR THE YEAR ENDED DECEMBER 31:

	MTA Defined Benefit Plan				
	2018	2017	2016	2015	2014
	(in millions, except %)				
MTA Bus's proportion of the net pension liability	17.11%	16.45%	20.10%	15.94%	16.51%
MTA Bus's proportionate share of the net pension liability	$ 301.79	$ 166.59	$ 269.74	$ 205.69	$ 170.80
MTA Bus's actual covered-employee payroll	$ 367.80	$ 323.41	$ 325.65	$ 289.49	$ 312.78
MTA Bus's proportionate share of the net pension liability as a percentage of the Authority's covered-employee payroll	82.053%	51.510%	82.831%	71.053%	54.607%
Plan fiduciary net position as a percentage of the total pension liability	73.33%	79.87%	71.82%	70.44%	74.77%

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available. In accordance with GASB No. 68, information was not readily available for periods prior to 2014.

MTA BUS COMPANY
(Component Unit of Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF MTA BUS'S CONTRIBUTIONS FOR ALL PENSION PLANS
FOR THE YEARS ENDED DECEMBER 31:

	2019	2018	2017	2016	2015	2014
MTA Defined Benefit Plan						
Actuarially Determined Contribution	$ 59,767,691	$ 56,730,919	$ 52,132,718	$ 44,927,266	$ 43,851,553	$ 45,717,151
Actual Employer Contribution	59,768,598	57,263,638	50,478,821	44,299,995	45,928,494	46,605,811
Contribution Deficiency (Excess)	(907)	(532,719)	1,653,897	627,271	(2,076,941)	(888,660)
Covered Payroll	367,056,233	367,801,828	323,411,424	325,651,222	289,491,290	312,783,778
Contributions as a % of Covered Payroll	16.28%	15.57%	15.61%	13.60%	15.87%	14.90%

Notes to Schedule of MTA Bus's Contributions to Pension Plan:

Significant methods and assumptions used in calculating the actuarially determined contributions of an employer's proportionate share in a Cost Sharing, Multiple-Employer pension plan, the MTA Defined Benefit Plan, should be 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: covered employees.

Changes of Benefit Terms

The January 1, 2018 funding valuation reflects Arbitration and Impasse Awards and an MOU between MTA Bus and ATU Local 1179/1181 and TSO Local 106 TWU Local 100 that provide enhanced benefits to covered employees. The January 1, 2016 funding valuation reflects an Arbitration Award between MTA Bus and TWU Local 100 that provides enhanced benefits to covered employees.

There were no changes of benefit terms in the January 1, 2017 and 2015 funding valuation.

Changes of Assumptions

There were no changes of benefit assumptions in the January 1, 2016 and January 1, 2015 funding valuation.

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available. In accordance with GASB No. 68, information was not readily available for periods prior to 2014.

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MTA BUS COMPANY
(Component Unit of Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF MTA BUS'S PROPORTIONATE SHARE OF NET OPEB LIABILITY IN THE MTA OPEB PLAN AT:

Plan Measurement Date (December 31):	2018	2017
	(in millions, except %)	
MTA Bus's proportion of the net OPEB liability	3.24%	3.39%
MTA Bus's proportionate share of the net OPEB liability	$ 633.57	$ 695.53
MTA Bus's covered payroll	$ 275.14	$ 275.14
MTA Bus's proportionate share of the net OPEB liability as a percentage of its covered payroll	230.27%	252.79%
Plan fiduciary net position as a percentage of the total OPEB liability	1.76%	1.79%

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available. In accordance with GASB No. 75, information was not readily available for periods prior to 2017.

MTA BUS COMPANY
(Component Unit of Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF MTA BUS'S CONTRIBUTIONS TO THE MTA OPEB PLAN
FOR THE YEARS ENDED DECEMBER 31:

	2019	2018	2017
		(in millions, except %)	
Actuarially Determined Contribution	N/A	N/A	N/A
Actual Employer Contribution [(1)]	$ 29.26	$ 23.21	$ 22.10
Contribution Deficiency (Excess)	N/A	N/A	N/A
Covered Payroll	367.06	367.80	275.14
Actual Contribution as a Percentage of Covered Payroll	7.97%	6.31%	8.03%

(1) Actual employer contribution includes the implicit rate of subsidy adjustment of $770 and $909 for the years ended December 31, 2018 and 2017, respectively.

Notes to Schedule of MTA Bus's Contribution to the OPEB Plan:

Methods and assumptions used to determine contribution rates:

Valuation date	July 1, 2017
Measurement date	December 31, 2018
Discount rate	4.10%, net of expenses
Inflation	2.50%
Actuarial cost method	Entry Age Normal
Amortization method	Level percentage of payroll
Normal cost increase factor	4.50%
Salary Increases	3.50%
Investment rate of return	6.50%

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.

Changes in Actuarial Assumptions since Prior Valuation: The retirement rates for other non-represented members were revised to reflect changes in retirement eligibility conditions, as they are now eligible for MABSTOA style pension benefits. The impact of this change is considered a plan change.

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available. In accordance with GASB No. 75, information was not readily available for periods prior to 2017.

Metro-North Commuter Railroad Company

(Component Unit of the Metropolitan Transportation Authority)

Financial Statements as of and for the Years Ended December 31, 2019 and 2018, Required Supplementary Information, and Independent Auditors’ Report

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METRO-NORTH COMMUTER RAILROAD COMPANY
(Component Unit of the Metropolitan Transportation Authority)

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INDEPENDENT AUDITORS' REPORT

To the Members of the Board of Metropolitan Transportation Authority

Report on Financial Statements

We have audited the accompanying financial statements of net position of Metro-North Commuter Railroad Company (the "MTA Metro-North Railroad"), a component unit of the Metropolitan Transportation Authority ("MTA"), which comprise the balance sheets as of December 31, 2019 and 2018, and the related statements of revenues, expenses, and changes in net position and cash flows for the years then ended and the related notes to the financial statements, which collectively comprise the MTA Metro-North Railroad's financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the net position of Metro-North Commuter Railroad Company as of December 31, 2019 and 2018, and the respective changes in net position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 1 to the financial statements, MTA Metro-North Railroad is a component unit of the MTA The MTA is a component unit of the State of New York. MTA Metro-North Railroad requires significant subsidies from and has material transactions with MTA. MTA Metro-North Railroad also relies on subsidies from the Connecticut Department of Transportation to support the Connecticut operations of the New Haven Line. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's discussion and analysis, the Schedule of Changes in the MTA Metro-North Commuter Railroad Company's Net Pension Liability and Related Ratios for the Metro-North Cash Balance Plan, the Schedule of the MTA Metro-North Commuter Railroad Company's Proportionate Share of the Net Pension Liability in the MTA Defined Benefit Pension Plan, the Schedule and Notes to the Schedule of MTA Metro-North Commuter Railroad Company's Contributions to all Pension Plans, the Schedule of MTA Metro-North Railroad's Proportionate Share of Net OPEB Liability in the MTA OPEB Plan, and the Schedule and Notes to the Schedule of MTA Metro-North Railroad's Contribution to the MTA OPEB Plan, as listed in the table of contents, be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

[*Signature*]

May XX, 2020

OVERVIEW OF THE FINANCIAL STATEMENTS

Introduction

The following is a narrative overview and analysis of the financial activities of the Metro-North Commuter Railroad Company (the "MTA Metro-North Railroad", "MNR", or the "Company"), a component unit of the Metropolitan Transportation Authority ("MTA"), for the years ended December 31, 2019 and 2018. It is intended to serve as an introduction to the MTA Metro-North Railroad's financial statements, which have the following components: (1) Management's Discussion and Analysis (MD&A), (2) Financial Statements, (3) Notes to the Financial Statements and (4) Required Supplementary Information.

Management's Discussion and Analysis

The management discussion and analysis provides an assessment of how the MTA Metro-North Railroad's position has improved or deteriorated and identifies the factors that, in management's view, significantly affected the Company's overall financial position. It may contain opinions, assumptions or conclusions by the Company's management that should not be considered a replacement for, and must be read in conjunction with, the financial statements.

The Financial Statements

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

The Statements of Revenues, Expenses and Changes in Net Position show how MTA Metro-North Railroad's net position changed during each year and accounts for all the current and prior year's revenues and expenses, measure the success of the Company's operations over the twelve months and can be used to determine how the Company has funded its costs.

The Statements of Cash Flows provide information about the MTA Metro-North Railroad's cash receipts, cash payments and net changes in cash resulting from operations; noncapital financing and capital related financing activities.

The Notes to the Financial Statements

The notes provide information that is essential to understanding the financial statements, such as the MTA Metro-North Railroad's basis of presentation and significant accounting policies.

The notes also have the details of cash, capital assets, employee benefits, lease transactions and future commitments and contingencies of the MTA Metro-North Railroad, including any other events or developing situations that could materially affect the MTA Metro-North Railroad's financial position.

Required Supplementary Information

The Required Supplementary Information provides information concerning MTA Metro-North Commuter Railroad Company's progress in funding its obligation to provide pension and other postemployment benefits to its employees. It also includes the Schedule of Changes in the MTA Metro-North Commuter Railroad Company's Net Pension Liability and Related Ratios for the Metro-North Commuter Railroad Company Cash Balance Plan, the Schedule of the MTA Metro-North Commuter Railroad Company's Proportionate Share of the Net Pension Liability in the MTA Defined Benefit Pension Plan, the Schedule of MTA Metro-North Commuter Railroad Company's Contributions to All Pension Plans, the Notes to Schedule of MTA Metro-North Commuter Railroad Company's Contributions to all Pension Plans, the Schedule of MTA Metro-North Commuter Railroad Company's Proportionate Share of the Net Other Post Employment Benefit Liability in the MTA Other Post Employment Benefit Plan, and the Schedule and Notes of MTA Metro-North Commuter Railroad Company's Contributions to Other Post Employment Benefit Plan and Notes to Schedule of Contributions to the Other Post Employment Benefit Plan.

FINANCIAL REPORTING ENTITY

The MTA Metro-North Railroad is a component unit of the MTA, established in September 1982 pursuant to the New York State Public Authorities Law and is a part of the related financial reporting group of the MTA. The MTA is a component unit of the State of New York.

The MTA Metro-North Railroad plays a vital role in the transportation network for the region. Commuter service is provided every day of the year, although frequency of service varies by route, day of week and time of day. Passenger transportation is provided between New York City and the suburban communities in Westchester, Dutchess, Putnam, Orange, and Rockland counties in New York State, and New Haven and Fairfield counties in Connecticut. The Company has direct operating responsibility for the entire New Haven commuter railroad line under a Service Agreement among MTA, MTA Metro-North Railroad and the Connecticut Department of Transportation ("CDOT"). Under the terms of the Service Agreement, CDOT pays 65% of the net operating deficit of the New Haven main line operating deficit.

The MTA Metro-North Railroad also has a service agreement with New Jersey Transit ("NJT"). The agreement allows NJT to provide passenger service on the Port Jervis and Pascack Valley Lines in the State of New York (referred to as "West of Hudson"). The MTA Metro-North Railroad compensates NJT for that service, for their operating deficit, capital needs and under certain prescribed circumstances for fare hold down amounts.

CONDENSED FINANCIAL INFORMATION

The following sections will discuss the significant changes in the MTA Metro-North Railroad's financial position for the years ended December 31, 2019 and 2018. Additionally, an examination 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, summaries of the financial statements and the various exhibits presented are in

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conformity with the MTA Metro-North Railroad's financial statements, which are presented in accordance with accounting principles generally accepted in the United States of America. All amounts are in thousands.

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

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

Other Assets include, but are not limited to cash, receivables due from MTA and affiliates, other receivables, farecards (MetroCard subway tickets) on consignment, materials and supplies net of the reserve for obsolescence and prepaid expenses.

Deferred outflows of resources for pensions reflect changes in pension valuation and employer contributions subsequent to the measurement date.

Deferred outflows of resources for other post-employment benefits ("OPEB") reflect changes in the valuation of OPEB and employer contributions subsequent to the measurement date of December 31, 2018 as a result of the implementation of GASB Statement No. 75 – Accounting and Financial Reporting by Employers for Post Employment Benefits Other Than Pensions. See note 2 of the audited financial statements for further information.

	As of December 31,			Increase/(Decrease)	
	2019	2018	2017	2019–2018	2018–2017
Capital assets—net	##########	##########	##########	########	$ 264,466
Other assets	319,734	305,301	309,043	14,433	(3,742)
Deferred Outflows of resources for Pensions	280,683	199,557	247,750	81,126	(48,193)
Deferred Outflows of resources for OPEB	144,889	115,823	-	29,066	115,823
Total assets and deferred outflows of resources	##########	##########	##########	########	$ 328,354

Significant changes in Assets and Deferred Outflows of resources include:

<u>December 31, 2019 versus 2018</u>

- Net capital assets increased from 2018 to 2019 by $384,454 or 7.55%. Increases in construction work-in-progress of $165,903 included $77,902 of Harmon Shop Replacement, $48,515 for Positive Train Control and $41,129 for Enhanced Station Initiative. Major additions to capital assets in 2019 were $451,906 primarily for Harmon Shop Improvements for $301,740. These increases were offset by depreciation and amortization of $233,355.

- Other assets increased in 2019 by $14,433 or 4.73%. Increase in cash of $11,032 primarily due to the receipt of advance funding and undisbursed balance of $8,513 for the Maybrook Trailway project which is part of the Empire State Trail initiative for a 750-mile long hiking and biking trail network throughout New York state; Materials and supplies net of reserve increased by $15,569 due to spares for M8 fleet maintenance, and buildup of inventory for the wheel and axle support shop; and Accounts Receivable increased by $6,362 primarily due to timing of MTA reimbursements of Capital project expenses. These increases were offset by a decrease of $6,667 in fare cards due to elimination of the monthly rail ticket with the $50 MetroCard and timing of other stock replenishment; and decrease of $11,184 due to timing of MTA funding for disbursements.

- Deferred outflows of resources for Pensions increased by $81,126 or 40.65% due to increase in difference between projected versus actual plan investment earnings of $79,788; increase in the differences between expected and actual experience of $12,847; increase in difference of contributions made after measurement date of $5,975; offset by the decrease in the proportion and differences in employer contributions of $16,937; and decrease in the actuarial assumption changes or inputs of $548.

- Deferred outflows of resources for OPEB increased by $29,066 or 25.10% due to increase in the proportion and differences in employer contributions of $32,584, increase in contributions after measurement date of $2,582; increase in difference between projected versus actual plan investment earnings of $1,471; offset by decrease in actuarial assumption changes or inputs of $7,460; and decrease in recognition of the differences between expected and actual experience of $111.

December 31, 2018 versus 2017

- Net capital assets increased from 2017 to 2018 by $264,466 or 5.48%. Increases in construction work-in-progress of $332,480 included $77,450 of Positive Train Control ("PTC"), $56,181 for Harmon Shop Improvements and $40,517 for Enhanced Station Initiative. Major additions to capital assets in 2018 were $150,889 and included $51,585 for the reconfiguration of Substation Bridge 23 at Mt. Vernon East, $21,669 for turn-out and interlocking switch replacements, $17,882 for Grand Central Terminal ("GCT") leaks remediation, and $17,547 for 2016 Cyclical Track Program. These increases were offset by depreciation and amortization of $218,903.

- Other assets decreased in 2018 by $3,742 or 1.21%. Increase in cash primarily due to receipt of $10,726 in the landmark account established under the 1997 Grand Central Terminal Continuing Maintenance Agreement; Materials and supplies net of reserve increased by $8,849 due to spares supporting PTC initiatives, M7 and M8 fleet support, and Maintenance of Way maintenance programs including replacement of switches, turnouts and rails. These increases were offset by a decrease of $18,248 in accounts receivable and a decrease of $3,440 in prepaid assets. Accounts receivable decreased primarily due to the Amtrak payment of $51,000 for its proportionate share of operating and capital costs under Section 212 of the Passenger Rail Investment and Improvement Act ("PRIIA") of 2008. The decrease in accounts receivable was also attributable to the return of funds invested by MTA for OPEB funding for $11,862.

- Deferred outflows of resources for Pensions decreased by $48,193 or 19.45% due to decrease in the differences between expected and actual experience of $9,990; decrease in difference between projected versus actual plan investment earnings of $62,344; decrease in difference of contributions made after measurement date of $3,671; offset by the recognition of actuarial assumption changes or inputs of $3,396; and increase in the proportion and differences in employer contributions of $24,416.

- Deferred outflows of resources for OPEB increased by $115,823 under GASB Statement No. 75 due to the recognition of the difference between expected and actual experience of $898; actuarial assumptions or inputs of $60,162; and contributions after measurement date of $54,763.

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

Current liabilities include: accrued payroll and related fringe benefits, the short-term portion of claims liabilities, amounts due to MTA and affiliates and accounts payable accrued in the normal course of business.

Non-current liabilities include: net pension liability, claims for injuries to persons, postemployment benefits and a capital lease obligation for Grand Central Terminal.

Deferred inflows of resources reflect the difference between actual and projected pension plan investment earnings.

	As of December 31,			Increase/(Decrease)	
	2019	2018	2017	2019–2018	2018–2017
Current liabilities	$ 445,851	$ 380,854	$ 341,491	$ 64,997	$ 39,363
Noncurrent liabilities	2,171,595	2,070,254	1,185,194	101,341	885,060
Deferred inflows of resources for Pensions	20,269	66,254	20,584	(45,985)	45,670
Deferred inflows of resources for OPEB	124,692	1,610	-	123,082	1,610
Total liabilities and deferred inflows of resources	$ 2,762,407	$ 2,518,972	$1,547,269	$ 243,435	$ 971,703

Significant changes in liabilities include:

<u>December 31, 2019 versus 2018</u>

- Current liabilities increased in 2019 by $64,997 or 17.07%. The increase is primarily due to MTA and affiliated agencies of $75,058 due to timing of loan repayment to MTA; $15,585 in other liabilities for project advances primarily for Maybrook Trailway Project of $8,513; and $4,937 in salaries, wages and payroll taxes due to an additional week of payroll accrual and retroactive wage adjustment accruals. These increases were offset by a decrease in accounts payable of $13,890 due to timing of payments to vendors; and decrease of $16,518 due to CDOT as a result of lower advance deposits for capital projects and administrative asset accruals.

- Non-current liabilities increased in 2019 by $101,341 or 4.90%. The increase was primarily attributable to the increase of net pension liability of $123,412; increase of $1,915 for environmental remediation primarily for Harmon Shop replacement project; and increase of $1,527 for other long term liabilities due to additional lease space on Graybar office building. These increases were offset by a decrease of $4,766 in personal injury liability; and a decrease of $2,393 in New York Power Authority ("NYPA") loans.

<u>December 31, 2018 versus 2017</u>

- Current liabilities increased in 2018 by $39,363 or 11.53%. The increase is primarily in accounts payable of $6,634 due to the timing of payments to vendors; Due to MTA and affiliated agencies of $11,678 due to timing of reimbursements; salaries, wages and payroll taxes of $7,073 due to higher wages in 2018 and retroactive wage adjustment accruals; vacation and sick pay benefits of $10,832 resulting from the revised eligibility rules for sick buyback in the labor agreements. In addition, there was an increase in other liabilities of $10,421 primarily due to receipt of $10,726 in the landmark account established under the 1997 Grand Central Terminal Continuing Maintenance Agreement. These increases were offset by a decrease of $5,770 due to CDOT for PRIIA reimbursements made by Amtrak.

- Non-current liabilities increased in 2018 by $885,060 or 74.68%. The increase was primarily attributable to the recognition of net OPEB liability for unfunded plans as required under GASB Statement No. 75 for $1,571,315 offset by the reversal of OPEB liability under GASB Statement No. 45 for $609,329. Additionally, the liability for environmental remediation increased by $14,840 primarily for the Harmon Shop replacement project. These increases were offset by a decrease in net pension liability of $90,093 primarily due to improved performance on pension plan assets and a decrease of $3,916 in New York Power Authority ("NYPA") loans modified at the completion of the phase II energy efficiency project at Grand Central Terminal.

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

	As of December 31,			Increase/(Decrease)	
	2019	2018	2017	2019-2018	2018–2017
Net investment in capital assets	$5,463,474	$5,078,863	$4,814,097	$ 384,611	$ 264,766
Unrestricted	(2,003,665)	(1,884,699)	(976,583)	(118,966)	(908,116)
Total net position	$3,459,809	$3,194,164	$3,837,514	$ 265,645	$(643,350)

In 2019, the total net position increase of $265,645 is primarily due to increased payments made by MTA for capital projects and offset by lower operating loss and implementation of GASB Statement No. 75 in 2018.

In 2018, the total net position decrease of $643,350 is primarily attributable to the implementation of GASB Statement No. 75 and increase in operating expenses due to wage increases for employees offset by increased payments made by MTA for capital projects and increased subsidies received from CDOT.

Condensed Statements of Revenues, Expenses and Changes in Net Position

	Years Ended December 31,			Favorable/(Unfavorable)	
	2019	2018	2017	2019–2018	2018–2017
Operating revenues	$ 813,159	$ 792,054	$ 790,927	$ 21,105	$ 1,127
Operating expenses	(1,654,077)	(1,683,114)	(1,623,895)	29,037	(59,219)
Asset impairment & related expenses	(642)	-	-	(642)	-
Operating loss	(841,560)	(891,060)	(832,968)	49,500	(58,092)
Total nonoperating revenues	1,107,205	997,884	924,716	109,321	73,168
Change in net position	265,645	106,824	91,748	158,821	15,076
Net position—beginning of year	3,194,164	3,837,514	3,745,766	(643,350)	91,748
Restatement of beginning net position	-	(750,174)	-	750,174	(750,174)
Net position—end of year	$3,459,809	$3,194,164	$3,837,514	$ 265,645	#########

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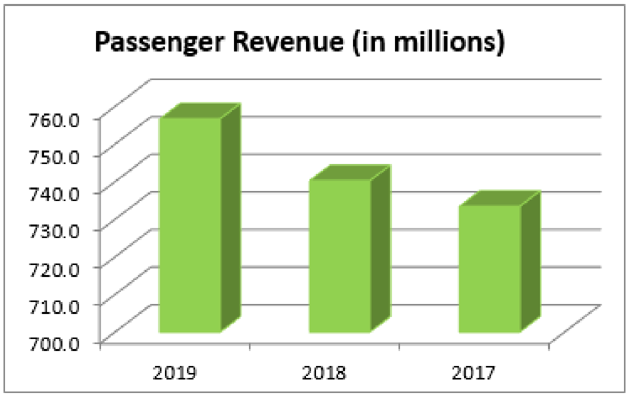
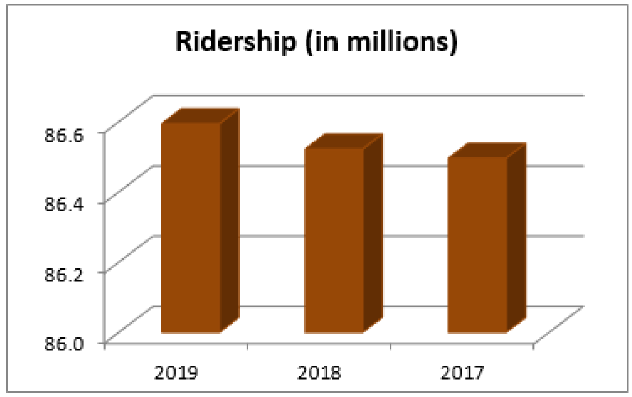
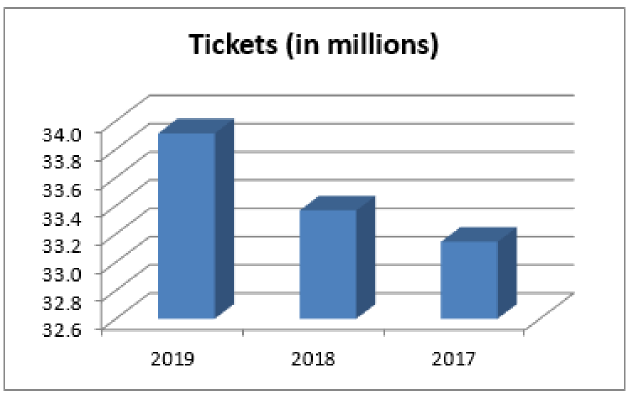
Operating Revenues by Major Source







Passenger fares accounted for 93.0% and 93.4% of operating revenues in 2019 and 2018, respectively. The remaining revenue represents collection of rental income from stores in and around passenger stations and revenue generated from advertising.

MTA Metro-North (East of Hudson) passenger revenue increased in 2019 by $16.45 million or 2.3%. The revenue increase is primarily a reflection of the full year impact of the April 21, 2019 New York State 3.85% fare increase. MTA Metro-North (West of Hudson) passenger revenue decreased in 2019 by $5.0 thousand or 0.03%.

MTA Metro-North (East of Hudson) ridership increased in 2019 by 69.67 thousand or 0.1% from 2018. When adjusted for the same number of calendar workdays, the 2019 ridership increased by 81.16 thousand or 0.1%. West of Hudson ridership increased in 2019 by 2.54 thousand or 0.16% from 2018.

MTA Metro-North (East of Hudson) passenger revenue increased in 2018 by $6.605 million or 0.9%. The revenue increase is primarily a reflection of the full year impact of the March 19, 2017 New York State 3.75% fare increase. MTA Metro-North (West of Hudson) passenger revenue increased in 2018 by $192.1 thousand or 1.3%.

MTA Metro-North (East of Hudson) ridership increased in 2018 by 31.78 thousand or 0.04% from 2017. However, when adjusted for the same number of calendar workdays, the 2018 ridership decreased by 125.2 thousand or 0.1%. West of Hudson ridership decreased in 2018 by $5.8 thousand or -0.36% from 2017.

Expenses by Category

<u>December 31, 2019 versus 2018</u>

Salaries and wages increased by $7,338 or 1.17% in 2019 over 2018. This increase is primarily due to accruals for the 2018 retroactive wage adjustments for pending union agreements.

Retirement and Other Employee Benefits decreased by $18,505 or 7.02% in 2019 over 2018. The decrease is primarily due to higher overhead costs recovery of $17,938 due to increased capital work performed; lower GASB 68 pension adjustment of $7,469; and lower GASB 75 implicit subsidy of $867 thousand. These decreases were offset by the higher estimated Actuarially Determined Contribution ("ADC") for pension of $5,114; higher Railroad Retirement contributions by $2,518 primarily due to an increase in the maximum tax earnings base; and higher health and welfare costs of $252 thousand.

Postemployment Benefits other than Pensions dereased by $19,202 or 12.60%. This is due to the decrease in GASB 75 OPEB expense of $20,917. This decrease is primarily the result of GASB 75 actuarial valuation offset by increase in retiree health and welfare costs of $1,715.

Electric Power costs decreased by $4,871 or 6.47% as compared to 2018. This decrease reflects lower rates and lower usage due to milder temperatures in 2019.

Fuel costs decreased by $2,469 or 11.36% as compared to 2018. This decrease primarily reflects a decrease in diesel fuel rates.

Claims costs decreased by $2,559 or 49.57% as compared to 2018. This is primarily due to lower actuarial valuation for claims as a result of lower than expected claim cost emergence in 2019.

Maintenance and Other Operating Contracts increased $5,255 or 4.89%. Increased utilities by $5,604 primarily attributable to a settlement of water billings for prior years of $3,743 and increased operating contracts by $2,979 primarily due to revenue vehicle maintenance and repairs of $2,120. These increases were offset by lower facilities expenses of $3,328.

Professional service contracts increased by $4,262 or 11.52%. This increase is primarily due to higher allocated MTA Information Technology and Business Service Center costs for the New Haven Line of $5,724; outside legal and audit services of $858; consolidated service charges from MTA of $619; offset by lower market research and ridership analysis of $1,145; other professional service contracts of $1,003 and office equipment and software services of $886.

Environmental Remediation decreased by $14,301 or 82.42% and is mainly attributable to the environmental abatement and disposal costs associated with demolition and excavation activities of the Harmon Shop replacement project in 2018.

Materials and supplies increased by $12,166 or 12.78% primarily due to an increase in the obsolescence reserve of $2,838 pertaining to rolling stock parts; usage of maintenance materials for revenue vehicles of $6,766; and infrastructure repairs of $3,567.

Other business expenses decreased by $5,550 or 19.50% primarily due to lower miscellaneous expenses of $2,248 as a result of lower CDOT discrepancy capital billing write-offs of $870 and write-off of projects in progress and project studies of $1,083 in 2018; increased PRIIA recovery from Amtrak of $1,981 primarily for propulsion related costs and an increase in shared right-of-way costs; and higher billings on freight of $1,274 for Hudson and West of Hudson lines.

Depreciation expense increased by $11,111 or 4.0%. This was primarily attributable to the completion of Harmon Shop Improvements, purchase of roadway equipments, cyclical track program, installation of M-8 car cameras, Park Avenue Alarm system and Outfront screen installations.

<u>December 31, 2018 versus 2017</u>

Salaries and wages increased by $24,700 or 4.1% in 2018 over 2017. This increase is primarily due to the wage increases for the MTA Metro-North's represented and non-represented staff, and increased accruals for earned but unused sick time resulting from the revised eligibility rules for sick buyback in the labor agreements.

Retirement and Other Employee Benefits decreased by $14,640 or 5.3% in 2018 over 2017. Health and welfare expenses decreased by $12,976 primarily due to the implementation of GASB Statement No. 75 (see Note 8). Included in premiums paid for active employees is an implicit subsidy related to retirees resulting in a decrease of $18,346. Employee claims decreased $12,244 due to lower projections as per the actuarial calculation. Also contributing to the decrease was the higher overhead costs recovery by $5,967. These decreases were offset by increase in pension expenses by $12,963. Railroad Retirement of $3,655 primarily due to an increase in the maximum tax earnings base.

Postemployment Benefits other than Pensions increased by $20,543 or 15.6%. This is primarily due to changes in the valuation of OPEB and employer contributions subsequent to the measurement date of December 31, 2017 as a result of the implementation of GASB Statement No. 75.

Electric Power costs increased by $9,115 or 13.8% as compared to 2017. This increase reflects higher rates in 2018.

Fuel costs increased by $4,919 or 29.3% as compared to 2017. This increase primarily reflects an increase in diesel fuel rates.

Claims costs decreased by $4,345 or 45.7% as compared to 2017. This is primarily due to a decrease in in NJT claim reserves and expenses.

Maintenance and Other Operating Contracts increased $6,674 or 6.6%. MTA Police Services increased by $2,171 primarily due to increased salaries. Increased maintenance and repairs of $2,049, equipment and vehicle rental of $888, escalator and elevator maintenance of $863, environmental testing and services of $829, weed control and clearing of $711, and revenue vehicle maintenance of $673. These increases were offset by lower safety equipment and supplies of $1,705 as compared to 2017.

Professional service contracts increased by $1,559 or 4.4%. This increase is primarily due to higher consolidated services charges from MTA of $1,031, higher allocated MTA Information Technology (IT) costs for the New Haven Line of $979, and legal expenses of $849, offset by lower outside professional service contracts of $880 and lower marketing expenses of $566 as compared to 2017.

Environmental Remediation increased by $16,124 or 1,314.1% and is mainly attributable to the environmental abatement and disposal costs associated with demolition and excavation activities of the Harmon Shop replacement project.

Materials and supplies increased by $3,966 or 4.3% primarily due to an increase in usage of maintenance materials for revenue vehicles of $3,584.

Other business expenses increased by $160 or 0.5% primarily due to increased New Jersey Transit subsidies of $1,671, increased print and stationery supplies of $420, credit card fees of $412 resulting from increased usage of MTA eTix®, and decreased expense recoveries of $276. These increases were offset by a decrease in bad debts of $758, decrease in travel for meetings and conventions of $212, and decrease in miscellaneous expenses of $1,662 primarily due to the write-off in 2017 of a GCT study and evaluation for a planned capital project that was discontinued.

Depreciation expense decreased by $9,693 or 4.0%. Capital improvements relating to leak remediation in GCT, track improvements and a new substation increased depreciation by $2,369. Offsetting this increase was the cessation of depreciation for assets that reached the end of their depreciable lives including Park Avenue tunnel improvements, GCT escalators and ticket selling equipment.

Nonoperating Revenues by Major Source

MTA Contributions for Capital Projects — MTA capital contributions increased in 2019 by $98,052 or 22.2%. The increase in 2019 is primarily due to the $77,902 contribution for Harmon Shop Replacement.

MTA Operating Subsidies — MTA operating subsidies are driven by the excess of operating expenses over fare and other revenues. These subsidies decreased in 2019 over 2018 by $15,532 or 3.7%, primarily due to a $78,998 increase in 2018 on reimbursements for operating projects. Fare revenue collection increased by $16,448 due to fare increases. Total labor related disbursements increased by $47,576 and non-labor disbursements increased by $51,154.

CDOT Subsidies Relating to the New Haven Line — CDOT subsidies increased in 2019 by approximately $0.917 or 0.68% primarily due to higher administrative asset allocation to CDOT of $1,228, offset by a decrease in operating deficit subsidy of $0.311. This decrease in operating deficit subsidy is primarily attributable to a decrease in OPEB cost due to funds withrawal in 2018 of $8,645 and an increase in passenger revenue of $2,811, reduced by increases in labor and fringe of $3,814, materials and supplies of $4,471 and contractual services and other costs of $3,482. The amount CDOT is required to contribute is derived from an agreed upon formula based on the New Haven Line deficit.

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 fourth quarter of 2019 increased relative to 2018, with ridership up by 5.4 million trips (0.2%). The increase was driven by MTA New York City Transit subway ridership, which rose by 17.7 million trips (1.1%). In addition, MTA Long Island Rail Road ridership rose by 1.3 million trips (1.5%) and MTA Metro-North Railroad rose by 0.1 million trips (0.1%). These increases through the fourth quarter were partially offset by ridership declines at MTA New York City Transit bus, which declined by 12.4 million trips (2.2%), MTA Bus, which declined by 1.0 million trips (0.8%), and MTA Staten Island Railway, which declined by 0.2 million trips (4.9%). The decline in bus ridership is consistent with a trend that began in 2009 and has been observed nationally, while the increase in subway ridership is the third quarterly increase after 12 consecutive year-on-year quarterly decreases that began in the second quarter of 2016. Vehicle traffic at MTA Bridges and Tunnels facilities through the fourth quarter increased by 7.1 million crossings (2.2%) compared with 2018 levels. The 2019 New York State Budget approved congestion pricing in Manhattan south of 60th Street, which is scheduled to go into effect in 2021—this will likely impact ridership and vehicle crossings.

Seasonally adjusted non-agricultural employment in New York City for the fourth quarter was higher in 2019 than in 2018 by 79.5 thousand jobs (1.7%). On a quarter-to-quarter basis, New York City employment increased 32.7 thousand jobs, increasing for thirty-seventh consecutive quarter—the last decline occurred in the third quarter of 2010—and was higher than at any time since 1950, when non-agricultural employment levels for New York City were first recorded by the Bureau of Labor Statistics.

National economic growth, as measured by Real Gross Domestic Product ("RGDP"), expanded at an annualized rate of 2.1% in the fourth quarter of 2019, according to the most recent advance estimate released by the Bureau of Economic Analysis. The increase in RGDP reflected increases in consumer spending, government spending, exports, and housing investment, which were partially offset by decreases in inventory investment and business investment. Imports, a subtraction in the calculation of GDP, decreased. The increase in consumer spending reflected increases in goods (led by motor vehicles and parts) and services (led by health care). The increase in government spending reflected increases at the federal, as well as state and local, government levels. The decline in inventory investment reflected a decrease in retail trade inventories (led by motor vehicle dealers), while the decline in business investment reflected a decrease in equipment (led by industrial equipment) and structures (led by mining exploration, shafts, and wells). In the third quarter, the annualized RGDP rate was also 2.1 percent.

The New York City metropolitan area's price inflation, as measured by the Consumer Price Index for All Urban Consumers ("CPI-U"), was lower than the national average in the fourth quarter of 2019, with the metropolitan area index increasing 1.84% while the national index increased 2.03%, when compared with the fourth quarter of 2018. Decreases in both the regional and national price of energy products (2.52% for the region, and 0.56% nationally) contributed to the low inflation rates; in the metropolitan area, the CPI-U exclusive of energy products increased by 2.15%, while nationally, inflation exclusive of energy products increased 2.25%. However, the spot price for New York Harbor conventional gasoline increased by 1.2%, from an average price of $1.70 per gallon to an average price of $1.72 per gallon between the fourth quarters of 2018 and 2019.

The Federal Open Market Committee ("FOMC") lowered its target for the Federal Funds rate during the fourth quarter of 2019, by a quarter point on October 31, 2019 to the target range of 1.50% to 1.75%. Job gains have been solid, on average, in recent months, and the unemployment rate has remained low. Although household spending has been rising at a strong pace, business fixed investment and exports remain weak. On a twelve-month basis, overall inflation and inflation for items other than food and energy are running below 2 percent, and market-based measures of inflation compensation remain low and survey-based measures of longer-term inflation expectations are little changed. The target rate reduction supports the FOMC's view that sustained expansion of economic activity, strong labor market conditions and inflation near the FOMC's 2 percent objective remain the most likely outcomes, but uncertainties remain. The FOMC indicated that the timing and size of future adjustments to the target range would consider realized and expected economic conditions relative to its maximum employment objective and its 2 percent inflation objective, including measures of labor market conditions, indicators of inflation and inflation expectations, and financial and international developments.

The influence of the Federal Reserve's monetary policy on the mortgage market is a matter of interest to the MTA, since variability of mortgage rates can affect the number of real estate transactions and thereby impact receipts from the Mortgage Recording Tax ("MRT") and Urban Tax, two important sources of MTA revenue. Mortgage Recording Tax collections for the fourth quarter of 2019 were higher than the fourth quarter of 2018 by $10.4 million (9.6%); receipts in the fourth quarter of 2019 were $10.3 million (8.0%) lower than receipts from the third quarter. Despite the overall recovery of MRT receipts that began in 2012 following the financial crisis, average monthly receipts in the fourth quarter of 2019 remain $25.1 million (39.5%) lower than the monthly average for 2006, just prior to the steep decline in Mortgage Recording Tax revenues. MTA's Urban Tax receipts—which are based on commercial real estate transactions and mortgage recording activity within New York City, and can vary significantly from quarter to quarter based on the timing of exceptionally high-priced transactions—were $4.0 million (2.6%) lower in the fourth quarter of 2019 than receipts for the fourth quarter of 2018; receipts in the fourth quarter of 2019 were $3.2 million (2.1%) higher than receipts from the third quarter. Average monthly receipts in the fourth quarter of 2019 were $17.9 million (24.3%) lower than the monthly average for 2007, just prior to the steep decline in Urban Tax revenues following the 2008 financial crisis.

Results of Operations

Total system-wide Metro-North ridership in 2019 was approximately 87.2 million rides, 85,883 rides higher than in the previous year, though slightly below the 2019 year-end forecast.

East of Hudson ridership in 2019 was approximately 85.0 million, 0.1 percent or 69,667 rides higher than in 2018. Ridership for the year on the Harlem Line was 27.37 million, down 0.3 percent from the previous year. Ridership rose on the Hudson line by 217,771 rides, or 1.3 percent, to a new high in 2019. The New Haven Line saw a slight decrease to 40.23 million rides in 2019 from 40.30 million rides in 2018.

One of the contributing factors to the decrease in New Haven ridership was 10 days of reduced service on the line to accommodate the CT-DOT Atlantic Street Bridge Replacement Project. Substitute busing on the Danbury Line for long periods to accommodate the installation of PTC on the line, and busing from Wassaic to Southeast on the Harlem Line for extended periods during major infrastructure improvements, also contributed to drops in ridership.

West of Hudson ridership was approximately 1.6 million, which was 0.2 percent above the previous year.

Combined ridership on Metro-North's three connecting services was about 598,416, up by 18,149 rides or 3.1 percent. Ridership also increased by 1.6 percent on the Hudson Rail Link, 5.6% on the Haverstraw-Ossining ferry and 8.2% on the Newburgh-Beacon ferry.

Metro-North's systemwide On-Time Performance (OTP) for 2019 was above goal at 94.4 percent. The Hudson Line performed at 95.0 percent OTP, the Harlem Line at 95.3 percent, and the New Haven Line at 93.4 percent. The Hudson and New Haven lines ran with modified operating schedules to accommodate major infrastructure work.

Mean Distance Between Failures (MDBF) improved in 2019, largely due to the warranty correction of new PTC equipment, which had generated equipment failures the prior year. MDBF was 238,464 miles in 2019, about 45 percent above goal. Completion of PTC equipment installations also improved car availability in 2019, resulting in a 99.4 percent "consist compliance rate," which is the percentage of cars required for daily service and customer seating. West-of-Hudson OTP for 2019 was 89.8 percent, 3.2 percent below target. This was driven by less reliable service on the Port Jervis Line due to PTC implementations.

Total Metro-North annual ridership in 2018 was approximately 87.1 million rides, 144,598 rides lower than the previous year. Total ridership includes East of Hudson, West of Hudson and Connecting Services.

East of Hudson ridership for the year was approximately 84.9 million, 0.1% or 125,205 rides lower than the 2017 ridership of 85 million rides.

Combined ridership on Metro-North's three connecting services was about 580,267, down by 8,848 rides or 1.5% versus 2017. However, ridership increased by 0.1% on the Hudson Rail Link, while decreasing on the Haverstraw-Ossining and the Newburgh-Beacon ferries by 3.1% and 8.4% respectively.

SIGNIFICANT CAPITAL ASSET ACTIVITY

Capital Program — The MTA Metro-North Railroad's portion of the MTA's capital program for 2015-2019 as approved by the MTA Board via plan amendment in September 2019, totals $2.464.5 billion. This program provides for fleet modernization of $379.4 million, shop and yard improvements of $473.3 million, GCT, stations and parking improvements of $510.9 million, track and structures repairs and improvements of $440.6 million, communications and signals upgrade of $348.0 million and power rehabilitation and improvements of $99.1 million.

Metro-North Railroad's portion of the 2010-2014 capital program as approved by the MTA Board via plan amendment in September 2019, is $1,564.3 million, including $242.4 million for fleet modernization, shop and yard improvements of $321.6 million, track and structures repair and rehabilitation work at $306.3 million, $303.8 million for communications and signals work primarily focused on positive train control implementation, $188.9 million of GCT, stations and parking improvements, and $119.5 million for power investments. These investments focus on safety and maintaining the core infrastructure. The majority of the projects in this program are either completed or nearing completion.

In the past, the capital program has addressed infrastructure state of good repair needs, including tracks, passenger stations, communications and maintenance shops. The achievements of the investments made during prior capital programs yielded dramatic improvements in trip times, reliability, on-time performance, passenger comfort, safety and convenience. See Capital Assets Note 5 for further details.

CURRENTLY KNOWN FACTS, DECISIONS, OR CONDITIONS

In October 2011, the MTA Board approved the proposal for an increase in New Haven Line fares for travel to or from stations located in Connecticut. A 4% New Haven Line fare increase was approved to be phased in as of January 1, 2015 (1%), January 1, 2016 (1%), January 1, 2017 (1%), and January 1, 2018 (1%).

On February 27, 2019, the MTA Board approved and authorized the implementation of increased fare levels for travel on the Hudson and Harlem Lines, as well as the New Haven Line for travel between stations in New York State only, effective April 21, 2019. Fares will not increase on Metro-North Railroad Pascack Valley and Port Jervis lines. The increase is approximately 3.85% or less, for all weekly and monthly passes, with increase limitations of no more than $15.00 for monthly tickets, and $5.75 for weekly passes. There will be no fare increases on monthly tickets or weekly tickets currently at or above $460.00, and $147.00, respectively. Some one-way fares will have larger percentage increases as fares must occur in $0.25 increments. Any one-way fare increase greater than 6% has been limited to not more than $0.50 per ride.

On February 26, 2020, the MTA Board approved the proposal for a 10% discount on eligible Metro-North ticket types and applicable railroad stations within ticket zones 1 & 2 of the City of New York. Eligible discounted tickets will be available on all modes of purchase including on board, through eTix, and from ticket windows and ticket vending machines (where available) at the applicable New York City stations. The pilot is designed to provide additional customer travel options within New York City. The duration of the pilot will be 6-12 months, and could begin as early as May 1, 2020. Funds from the Outer Borough Transportation Account established under Section 1270-i(3) of the Public Authorities Law are being allocated to the MTA, pursuant to agreement between the Governor and the State Legislative leaders, to support the NYC Outer Borough Rail Discount pilot ("Pilot"). The Pilot will only be implemented for such time period in which funds from the Outer Borough Transportation Account has been provided to the MTA or will be provided to the MTA to support such discounted tickets.

MTA Metro-North Railroad adopted an Essential Service Plan and commenced an amended Saturday schedule on the Hudson, Harlem, and New Haven Lines on March 27, 2020 until further notice. The amended schedule will provide all-day service for healthcare workers, first responders and essential employees who are on the frontlines of the COVID-19 public health crisis, from early in the morning until after midnight. The schedule will have additional trains in the morning and afternoon peak periods, and hourly service during off-peak mid-day and evening periods. During this special schedule, off-peak fares will be in effect. The reduction in service follow a significant drop in ridership in response to federal, state and local health precautionary directives against COVID-19. The measure is also being taken to protect the health and safety of customers and employees.

Passenger Rail Investment and Improvement Act

Pursuant to a 1991 trackage rights agreement with Amtrak, Metro-North is reimbursed for incremental operating costs associated with Amtrak's use of the New Haven Line, which is shared with CDOT at 65%. Under Section 212 of the Passenger Rail Investment and Improvement Act ("PRIIA") of 2008, the Northeast Corridor Infrastructure and Operations Advisory Commission (the "Commission") was established to develop and implement a cost-sharing arrangement (the "cost allocation policy") for the Northeast Corridor ("NEC") infrastructure used for commuter and intercity rail services. The cost allocation policy creates a standardized formula to ensure each intercity and commuter service is assigned the costs associated with its sole-benefit use of the NEC and a proportional share of costs resulting from joint-benefit use.

On April 26, 2018, an amendment to the 1991 agreement was executed which incorporates the applicable terms of the NEC cost allocation policy retroactively from October 1, 2015. The Amtrak expense recoveries (shared with CDOT at 65%) were approximately $27.7 million in 2019 and $25.5 million in 2018.

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METRO-NORTH COMMUTER RAILROAD COMPANY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF NET POSITION
DECEMBER 31, 2019 AND 2018
($ in thousands)

ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	2019	2018
CURRENT ASSETS:		
Cash (Note 3)	$ 36,768	$ 25,736
Fare cards	8,747	15,413
Invested funds at MTA (Note 2)	7,731	18,915
Receivables:		
Passenger	3,574	3,777
Due from MTA and affiliated agencies (Note 12)	82,017	76,212
Due from NYSDOT	1,100	658
Due from Amtrak	1,468	2,416
Rents	3,657	5,605
Other	3,376	1,240
Less allowance for doubtful accounts	(2,687)	(3,765)
Receivables—net	92,505	86,143
Materials and supplies—net of reserve for obsolescence of $50,123 and $43,768 in 2019 and 2018, respectively (Note 2)	140,989	125,420
Prepaid expenses and other current assets	28,309	28,901
Total current assets	315,049	300,528
NONCURRENT ASSETS:		
Capital assets (Notes 2 and 5):		
Land and construction work-in-progress	1,780,358	1,608,828
Other capital assets (net of accumulated depreciation)	3,696,552	3,483,628
Invested funds at MTA (Note 2)	-	68
Other	4,685	4,704
Total noncurrent assets	5,481,595	5,097,228
TOTAL ASSETS	5,796,644	5,397,756
DEFERRED OUTFLOWS OF RESOURCES		
Deferred Outflows for Pension	280,683	199,557
Deferred Outflows for Other Post Employment Benefits	144,889	115,823
TOTAL DEFERRED OUTFLOWS OF RESOURCES	425,572	315,380
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	$ 6,222,216	$ 5,713,136

See notes to financial statements.

(Continued)

METRO-NORTH COMMUTER RAILROAD COMPANY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF NET POSITION
DECEMBER 31, 2019 AND 2018
($ in thousands)

LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	2019	2018
CURRENT LIABILITIES:		
Accounts payable	$ 65,995	$ 79,885
Due to MTA and affiliated agencies (Note 12)	139,833	64,789
Due to CDOT	8,370	25,376
Accrued expenses:		
Salaries, wages and payroll taxes	56,360	51,424
Vacation and sick pay benefits	102,089	100,588
Other	44,445	28,858
Total accrued expenses	202,894	180,870
Current portion - retirement and death benefits	46	64
Current portion of estimated liability arising from injuries to persons (Note 10)	15,250	15,523
Current portion - loans payable (Note 6)	2,723	2,648
Current portion - obligations under capital lease (Note 9)	-	158
Current portion - environmental remediation (Note 11)	710	710
Unearned passenger revenue	10,030	10,831
Total current liabilities	445,851	380,854
NONCURRENT LIABILITIES:		
Net liability for other postemployment benefits (Note 8)	1,553,115	1,571,315
Net pension liability (Note 7)	494,115	370,703
Estimated liability arising from injuries to persons (Note 10)	55,205	59,970
Loans payable (Note 6)	12,208	14,602
Capital lease obligation (Note 9)	13,435	13,435
Environmental remediation (Note 11)	20,140	18,225
Other long-term liabilities	23,377	22,004
Total noncurrent liabilities	2,171,595	2,070,254
TOTAL LIABILITIES	2,617,446	2,451,108
DEFERRED INFLOWS OF RESOURCES		
Deferred Inflows from Pensions	20,269	66,254
Deferred Inflows from Other Post Employment Benefits	124,692	1,610
TOTAL DEFERRED INFLOWS OF RESOURCES	144,961	67,864
NET POSITION:		
Net Investment in Capital Assets	5,463,474	5,078,863
Unrestricted	(2,003,665)	(1,884,699)
Total net position	3,459,809	3,194,164
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	$ 6,222,216	$ 5,713,136

See notes to financial statements.

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METRO-NORTH COMMUTER RAILROAD COMPANY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
YEARS ENDED DECEMBER 31, 2019 AND 2018
($ in thousands)

	2019	2018
OPERATING REVENUES:		
Passenger	$ 756,680	$ 740,271
Rents and utilities	46,002	42,307
Advertising & Other Income	10,477	9,476
Total operating revenues	813,159	792,054
OPERATING EXPENSES:		
Salaries and wages	635,571	628,233
Retirement and other employee benefits	245,181	263,686
Postemployment benefits other than pensions	133,160	152,362
Electric Power	70,393	75,264
Fuel	19,266	21,736
Insurance	16,411	17,480
Claims	2,603	5,162
Maintenance and other operating contracts	112,653	107,398
Professional service contracts	41,245	36,983
Environmental Remediation	3,050	17,351
Materials and supplies	107,389	95,223
Depreciation and amortization	241,596	230,485
Other expense	25,559	31,751
Total operating expenses	1,654,077	1,683,114
Net expenses related to asset impairment (Note 13)	642	
OPERATING LOSS	(841,560)	(891,060)
NONOPERATING REVENUES (EXPENSES) (Notes 2 and 14):		
Operating subsidies from MTA	406,380	421,913
CDOT subsidies	135,679	134,762
Other Non-operating revenues (expenses)	(540)	(391)
Net nonoperating revenues	541,519	556,284
LOSS BEFORE CAPITAL CONTRIBUTIONS	(300,041)	(334,776)
CAPITAL CONTRIBUTIONS:		
MTA contributions for capital projects	565,686	441,600
Change in Net Position	265,645	106,824
NET POSITION—Beginning of year	3,194,164	3,837,514
Restatement of beginning net position - GASB 75 implementation	-	(750,174)
NET POSITION—End of year	$3,459,809	$3,194,164

See notes to financial statements.

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METRO-NORTH COMMUTER RAILROAD COMPANY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2019 AND 2018
($ in thousands)

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES:		
Passenger receipts	$ 756,018	$ 739,212
Rents, sundry, and other receipts	57,547	56,036
Payroll and related fringes	(1,013,264)	(973,145)
Other operating expenses	(257,083)	(279,261)
Net cash used in operating activities	(456,782)	(457,158)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Operating subsidies from MTA	406,380	419,438
Operating subsidies from CDOT	128,663	121,544
Other Non-operating revenues, net	720	794
Net cash provided by noncapital financing activities	535,763	541,776
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Capital contributions from MTA	136,703	101,831
Capital expenditures	(204,652)	(175,900)
Net cash used in capital related financing activities	(67,949)	(74,069)
NET INCREASE IN CASH	11,032	10,549
CASH—Beginning of year	25,736	15,187
CASH—End of year	$ 36,768	$ 25,736
RECONCILIATION OF OPERATING LOSS TO NET CASH USED IN OPERATING ACTIVITIES:		
Operating loss	$ (841,560)	$ (891,060)
Adjustments to reconcile to net cash used in operating activities:		
Depreciation, amortization, and retirements	241,596	230,485
Net increase in payables	133,400	156,675
Net increase in farecards and receivables	24,670	40,270
Net increase (decrease) in materials and prepaid expenses	(14,890)	6,472
NET CASH USED IN OPERATING ACTIVITIES	$ (456,784)	$ (457,158)
NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES		
Contributed capital assets	290,028	282,331
Capital assets and related liabilities	85,556	38,334
TOTAL NONCASH CAPITAL AND RELATED FINANCING ACTIVIES	$ 375,584	$ 320,665

See notes to financial statements.

1. BASIS OF PRESENTATION

Reporting Entity — The Metro-North Commuter Railroad Company (the "MTA Metro-North Railroad") is a component unit of the Metropolitan Transportation Authority (MTA), established in September 1982 pursuant to the New York State Public Authorities Law and is a part of the related financial reporting group of the MTA. The MTA is a component unit of the State of New York.

The MTA Metro-North Railroad performs a public service by providing essential commuter passenger transportation between New York City and the suburban communities in Westchester, Dutchess, Putnam, Orange, and Rockland Counties in New York State, and New Haven and Fairfield Counties in Connecticut. The Company has direct operating responsibility for the entire New Haven commuter railroad line under a service agreement among MTA, MTA Metro-North Railroad and the Connecticut Department of Transportation ("CDOT"). It also has direct operating responsibility for the Harlem/Hudson Lines in New York State. In addition, pursuant to a service agreement between the MTA Metro-North Railroad and New Jersey Transit Rail Operations, Inc. ("New Jersey Transit") the Company funds certain net operating costs of the Port Jervis and Pascack Valley Lines operated by New Jersey Transit.

MTA Metro-North Railroad is operationally and legally independent of the MTA. MTA Metro-North Railroad enjoys certain rights typically associated with separate legal status. However, MTA Metro-North Railroad is included in the MTA's consolidated financial statements as a blended component unit because of the MTA's financial accountability and MTA Metro-North Railroad is under the direction of the MTA Board (a reference to "MTA Board" means the board of MTA and/or the boards of the MTA Metro-North Railroad and other MTA component units 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 MTA Metro-North Railroad in its consolidated financial statements.

Substantial deficits result from providing these services and the MTA Metro-North Railroad expects that such deficits will continue in the foreseeable future. Funding for the MTA Metro-North Railroad's operations and capital needs is provided by MTA and CDOT. MTA obtains the required funds from state and federal grants, the sale of bonds to the public and other sources. Certain funding by MTA is made to the MTA Metro-North Railroad on a discretionary basis. The continuance of the MTA Metro-North Railroad's operations has been, and will continue to be, dependent upon the receipt of adequate funds from the MTA, as well as subsidies provided by CDOT.

The MTA Metro-North Railroad is not liable for real estate or personal property taxes on its properties, or sales taxes on substantially all of its purchases.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting — The accompanying consolidated 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 Metro North Railroad applies Governmental Accounting Standards Board ("GASB") Codification of Governmental Accounting and Financial Reporting Standards ("GASB Codification") Section P80, Proprietary Accounting and Financial Reporting.

2019 New Accounting Standards –

The MTA Metro-North adopted the following GASB Statements for the year ended December 31, 2019:

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

GASB Statement No. 84, *Fiduciary Activities*, improves guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The requirements of GASB Statement No. 84 are effective for reporting periods beginning after December 15, 2018. The adoption of this Statement had no impact on the MTA Metro-North's financial statements.

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

GASB Statement No. 90, "*Majority Equity Interest- an Amendment of GASB Statements No. 14 and No. 61"*, improves consistency in the measurement and comparability of the financial statement presentation of majority equity interests in legally separate organizations and improves the relevance of financial statement information for certain component units. The Statement defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. The Statement also establishes that ownership of a majority equity interest in a legally separate organization results in the government being financially accountable for the legally separate organization and, therefore, the government should report that organization as a component unit. In addition, the Statement also requires that a component unit in which a government has a 100 percent equity interest account for its assets, deferred outflows of resources, liabilities and deferred inflows of resources at acquisition value. GASB Statement No. 90 is effective for reporting periods beginning after December 15, 2018. The adoption of this Statement did not have a material impact to MTA Metro-North's financial statements.

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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 MTA Metro-North 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*	2020
89	*Accounting for Interest Cost Incurred Before the End of a Construction Period*	2020
91	*Conduit Debt Obligations*	2021
92	*Omnibus 2020*	2021
93	*Replacement of Interbank Offered Rates*	2021
94	*Public-Private and Public-Public Partnerships and Availability Payment Arrangements*	2023

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

MTA Investment Pool — The MTA, on behalf of the MTA Metro-North Railroad, invests funds which are not immediately required for the MTA Metro-North Railroad's operations in securities permitted by the MTA's All-Agency Investment Guidelines in accordance with the State Public Authorities Law, including repurchase agreements collateralized by U.S. Treasury securities, U.S. Treasury notes and U.S. Treasury zero-coupon bonds. All investments are held by the MTA's agent in custody accounts in the name of the MTA. The Company has no financial instruments with significant individual or group concentration of credit risk. The Authority categorizes its fair value measurement within the fair value hierarchy established by U.S. GAAP. The hierarchy is based on the valuation inputs used to measure fair value of the assets. Level 1 inputs are quoted prices in an active market for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs.

Materials and Supplies — Materials and supplies, except for repaired and repairable items, are recorded at average cost. Reserve for obsolete and excess materials was $50,123 and $43,768 in 2019 and 2018, respectively. Repaired items, such as engines and motors, are valued at 50% of their current purchase price.

Fare Cards – MTA Metro-North Railroad sells joint prevalued MetroCard ("fare cards") on consignment on behalf of an affiliated agency. Such fare cards are recorded at cost and reimbursed to the affiliated agency upon sale.

Capital Assets — Capital assets and improvements include all land, buildings, leasehold improvements, and equipment of the MTA Metro-North Railroad having a useful life of greater than two years and having a cost of at least $25.

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, 25 to 30 years for road and structures, 50 years for rail and buildings, and 3 to 20 years for other equipment. Capital lease assets and leasehold improvements are amortized over the term of the lease or the life of the assets, whichever is less.

Long-lived assets are reviewed for impairment whenever events or circumstances indicate that the carrying amount may not be recoverable. Impairment loss on assets to be sold, if any, is based on the estimated proceeds to be received, less estimated costs to sell.

Expenditures for maintenance and repairs that do not extend the useful life of the asset are charged to operations as incurred. Funding for substantially all capital projects of the MTA Metro-North Railroad is provided by MTA. Asset acquisitions funded by MTA on capital projects are transferred to the MTA Metro-North Railroad monthly.

Pollution Remediation Projects — Effective January 1, 2008, 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 10). 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 Metro-North Railroad is in violation of a pollution prevention-related permit or license; an imminent threat to public health due to pollution exists; the MTA Metro-North Railroad is named by a regulator as a responsible or potentially responsible party to participate in remediation; the MTA Metro-North Railroad voluntarily commences or legally obligates itself to commence remediation efforts; or the MTA Metro-North Railroad 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 revenues from the sale of tickets are recognized as income as they are sold; unearned revenue is recorded for tickets sold in advance of the period for which the ticket is valid. Revenues from rents are recorded when earned.

Nonoperating Revenues — The MTA Metro-North Railroad receives both Capital Contributions and Operating Subsidies from the MTA, and subsidies relating to New Haven Line operations from the Connecticut Department of Transportation.

Nonexchange Transactions with MTA — In accordance with GASB Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*, funds contributed by MTA for the MTA Metro-North Railroad's capital project expenditures are reported as nonoperating revenue when such expenditures are accrued. MTA contributions for capital projects are included as nonoperating capital projects subsidy in the accompanying statements of revenues, expenses and changes in net position.

The cost of certain services provided by MTA for the benefit of the MTA Metro-North Railroad are accrued as incurred, including the cost of police services relating to the New Haven Line. MTA does not charge the MTA Metro-North Railroad (or other related groups) for the cost of police services relating to the other lines.

Amount Recoverable from CDOT — The portion of the deficit from operations relating to the New Haven line recoverable from CDOT is recorded as nonoperating revenue based on billings reflecting the monthly deficit. The CDOT Service Agreement (the "Service Agreement"), dated June 21, 1985, governs the operations of the New Haven Line. The Service Agreement provides for automatic five-year renewals. The present renewal term commenced January 1, 2015 and expired December 31, 2019.

Under the terms of the Service Agreement, CDOT pays 100% of the net operating deficit of the branch lines (New Canaan, Danbury and Waterbury) and 65% of the New Haven main line operating deficit. The New Haven Line's share of the net operating deficit of Grand Central Terminal (GCT) is funded by a fixed fee for the use of GCT, calculated using several years as a base, with annual increases for inflation and the actual cost of operating GCT North End Access beginning in 1999. The Service Agreement also provides that CDOT shall pay 100% of the cost of nonmovable 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 MTA. Capital assets completely funded by CDOT are not reflected in the MTA Metro-North Railroad's 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 2017 and 2018 billing are still open.

Compensated Absences — The MTA Metro-North Railroad has accrued the full value (including fringe benefits) of all vacation and sick leave benefits earned by employees to date if the leave is attributable to past service and it is probable that the MTA Metro-North Railroad will compensate the employees for the benefits through paid time off or some other means, such as cash payments at termination or retirement. Accruals for vacation benefits were $62.4 million and $60.7 million at December 31, 2019 and 2018, respectively. Accruals for sick leave benefits were $39.6 million and $39.9 million at December 31, 2019 and 2018, respectively.

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 for MTA Metro-North Railroad was $8 million. For claims arising from incidents that occurred on or after November 1, 2009, but before November 1, 2012, the self-insured retention limits for MTA Metro-North Railroad was $9 million. Effective November 1, 2012 the self-insured retention limits for ELF was increased to $10 million for MTA Metro-North Railroad. Effective October 31, 2015, the self-insured retention limits for ELF was increased to $11 million for the MTA Metro-North Railroad. 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 million. 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 million per occurrence with a $50 million annual aggregate. FMTAC charges appropriate annual premiums based on loss experience and exposure analysis to maintain the fiscal viability of the program. On December 31, 2019, the balance of the assets in this program was $164.1 million.

MTA also maintains an All-Agency Excess Liability Insurance Policy that affords the MTA Group additional coverage limits of $350 million for a total limit of $400 million ($350 million excess of $50 million). 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 million.

On March 1, 2019, the “nonrevenue fleet” automobile liability policy program was renewed. This program provides third-party auto liability insurance protection for the MTA Group with the exception of MTA New York City Transit, MTA Bus and MTA Bridges and Tunnels. The policy provides $11 million per occurrence limit with a $0.5 million per occurrence deductible for MTA Metro-North Railroad. FMTAC renewed its deductible buy back policy, where it assumes the liability of the agencies for their deductible.

On December 15, 2019, FMTAC renewed the primary coverage on the Station Liability and Force Account liability policies $11 million per occurrence loss for MTA Metro-North Railroad.

Property Insurance — Effective May 1, 2019, FMTAC renewed the all-agency property insurance program. For the annual period commencing May 1, 2019, FMTAC directly insures property damage claims of the Related Entities in excess of a $25 million per occurrence deductible, subject to an annual $75 million aggregate deductible. The total All Risk program annual limit is $575 million 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 million per occurrence. The property insurance policy provides replacement cost coverage for all risks (including Earthquake, Flood and Wind) of direct physical loss or damage to all real and personal property, with minor exceptions. The policy also provides extra expense and business interruption coverage.

Supplementing the $575 million per occurrence noted above, FMTAC’s property insurance program has been expanded to include a further layer of $125 million of fully collateralized earthquake coverage for an event of a certain index value and for storm surge coverage for losses from storm surges that surpass specified trigger levels in the New York Harbor or Long Island Sound and are associated with named storms that occur at any point in the three year period from May 23, 2017 to April 30, 2020. The expanded protection is reinsured by MetroCat Re Ltd. 2017-1, a Bermuda special purpose insurer independent from the MTA and formed to provide FMTAC with capital markets based property reinsurance. The MetroCat Re Ltd. 2017-1 reinsurance policy is fully collateralized by a Regulation 114 trust invested in U.S. Treasury Money Market Funds. The additional coverage provided is parametric and available for storm surge losses resulting from a storm that causes water levels that reach the specified index values, and also for an earthquake event of a certain index value.

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

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

Additionally, MTA purchases coverage for acts of terrorism which are not certified under TRIPRA to a maximum of $204.3 million in 2019 and $215 million in 2020. Recovery under the terrorism policy is subject to a deductible of $25 million per occurrence and $75 million 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 million future losses in that policy year are subject to a deductible of $7.5 million. The terrorism coverages expire at midnight on December 31, 2020.

All Agency Protective Liability—

FMTAC All-Agency Protective Liability Program. Under the All-Agency Protective Liability Program ("AAPL"), FMTAC directly insures the Related Entities against claims arising out of work performed by independent contractors on capital projects. The policy provides coverage of $2 million per occurrence.

FMTAC All-Agency Protective Excess Liability Program. FMTAC directly insures the Related Entities to provide excess coverage on top of the AAPL. The policy provides coverage of $9 million in excess of $2 million per occurrence, with an $18 million annual aggregate. Any excess is covered by the ELF program.

Self-Insurance and Risk Retention — The MTA Metro-North Railroad is self-insured for liabilities arising from injuries to passengers, employees and others with the exception of injuries to non-employees and off-duty employees arising from occurrences at NYS stations ("Station Liability"), and employees and non-employees, arising from reimbursable project work ("Force Account"). The MTA Metro-North Railroad accrues the estimated total cost for the self-insured liability arising out of these claims. For incidents occurring on or before October 31, 2012, claims arising from Station Liability and Force Account are fully insured up to $9 million per occurrence. That amount was increased to $10 million per occurrence for incidents occurring on or after November 1, 2012 and increased to $11 million on October 31, 2015.

Retirement Benefits — The MTA Metro-North Railroad's pension plans are governmental plans and, accordingly, are not subject to funding and other requirements of the Employee Retirement Income Security Act of 1974 (ERISA).

MTA Metro-North Railroad adopted the standards of GASB Statement No. 68, *Accounting and Financial Reporting for Pension*, and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date*, for its pension plans.

MTA Metro-North Railroad 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 MTA Metro-North Railroad's proportionate share thereof in the case of a cost-sharing multiple-employer plan, determined as of MTA Metro-North Railroad's measurement date. Changes in the net pension liability during the period 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 period 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 period 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 period in which the difference occurred.

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

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

The MTA Metro-North recognizes a proportionate share of the net OPEB liability for the MTA's cost-sharing multiple-employer OPEB Plan, 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

The bank balances are insured up to $250 in the aggregate by the Federal Deposit Insurance Corporation ("FDIC") for each bank in which funds are deposited. The bank balances in 2019 and 2018 that were not insured were maintained in major financial institutions.

At December 31, 2019 and 2018, cash consisted of (in thousands):

	2019		2018	
	Carrying Amount	Bank Balance	Carrying Amount	Bank Balance
Insured deposits (FDIC)	$ 250	$ 250	$ 250	$ 250
Collateralized deposits	29,377	29,377	16,041	16,041
Uninsured deposits—noncollateralized	3,314	3,227	2,438	2,439
Uninsured amounts held by ticket agents and deposits in transit	3,827	-	7,008	-
	$36,768	$ 32,854	$25,736	$ 18,730

Certain of these cash accounts are held in the name of a trustee; the carrying amount of the trustee accounts at December 31, 2019 and 2018 were $3,961 and $7,717, respectively. These accounts include revenue pledged by the MTA Metro-North Railroad as collateral for the MTA Transportation Revenue Bonds, as discussed more fully in Note 4.

4. TRANSPORTATION REVENUE BONDS

The MTA Metro-North Railroad's capital programs are partially funded from the proceeds of bonds, including the MTA's Transportation Revenue Bonds. The Transportation Revenue Bonds are special obligations of MTA, payable from, and secured by a pledge of:

- the gross operating revenues of the MTA Metro-North Railroad, MTA Long Island Rail Road and the New York City Transit Authority ("MTA New York City Transit") and its component, the Manhattan and Bronx Surface Transit Operating Authority, until monthly deposits of principal and interest are satisfied under the Transportation Revenue Bond Resolution,

- Triborough Bridge and Tunnel Authority's operating surplus,

- general operating subsidies from the State and local governments,

- special tax-supported operating subsidies, and

- station maintenance and service reimbursements.

5. CAPITAL ASSETS, NET

The following is a summary of capital assets activity as of December 31, 2019 and 2018:

	Balance December 31, 2017	Additions/ Reclassifications	Deletions/ Reclassifications	Balance December 31, 2018	Additions/ Reclassifications	Deletions/ Reclassifications	Balance December 31, 2019
Capital assets, not being depreciated:							
Land	$ 86,741	$ 5	$ -	$ 86,746	$ 5,628	$ -	$ 92,374
Construction work-in-progress	1,189,602	494,635	162,155	1,522,082	620,858	454,955	1,687,985
Assets awaiting disposition	5	-	5	-	-	-	-
Total capital assets, not being depreciated	1,276,348	494,640	162,160	1,608,828	626,486	454,955	1,780,359
Capital assets, being depreciated:							
Roads	1,877,677	112,789	-	1,990,466	40,599		2,031,065
Buildings and structures	3,430,384	44,174	-	3,474,558	366,701	189	3,841,070
Buildings and structures under capital leases	28,372	-	-	28,372			28,372
West of Hudson improvement	251,518	647	-	252,165	2,736		254,901
Passenger cars	1,511,579	298	6,610	1,505,267	9,027	4,192	1,510,102
Locomotives	167,934	-	2,232	165,702	1,347	87	166,962
Other	328,644	4,912	3,089	330,467	35,275	4,939	360,803
Total capital assets, being depreciated	7,596,108	162,820	11,931	7,746,997	455,685	9,407	8,193,275
Less accumulated depreciation:							
Roads	1,127,683	48,589	-	1,176,272	50,420		1,226,692
Buildings and structures	1,636,956	98,845		1,735,801	107,046	189	1,842,658
Buildings and structures under capital leases	2,377	101	-	2,478	101		2,579
West of Hudson improvement	81,669	6,889	-	88,558	7,113		95,671
Passenger cars	818,540	51,683	6,610	863,613	51,259	3,550	911,322
Locomotives	116,308	6,944	2,149	121,103	6,394	87	127,410
Other	260,933	17,434	2,823	275,544	19,263	4,415	290,392
Total accumulated depreciation	4,044,466	230,485	11,582	4,263,369	241,596	8,241	4,496,724
Total capital assets, being depreciated—net	3,551,642	(67,665)	349	3,483,628	214,089	1,166	3,696,551
Capital assets—net	$ 4,827,990	$ 426,975	$ 162,509	$ 5,092,456	$ 840,575	$ 456,121	$ 5,476,910

Interest costs of $1,744 and $939 related to debt reflected on the books of MTA and used to finance the MTA Metro-North Railroad's construction in progress were capitalized as part of properties and equipment in 2019 and 2018, respectively.

All trackage in New York State is leased by MTA (see Note 9) except for the land and related improvements constituting the New Haven Line between the Connecticut border at Port Chester, New York and Woodlawn Junction, which is owned by the MTA Metro-North Railroad.

On April 24, 2015, the Federal Railroad Administration approved a U.S. Federal Railroad Administration loan of $967.1 million under its Railroad Rehabilitation and Improvement Financing Program. MTA, on behalf of Metro-North Railroad, and the Long Island Rail Road, applied for funding to improve the safety of signal systems. The loan, will finance the installment of Positive Train Control, a technology designed to remove the potential for human error that can lead to train-involved accidents. The loan was approved by the MTA Board at its meeting on April 29, 2015 and the loan was closed in May 2015. MTA will issue its Transportation Revenue Bond directly to the Federal Railroad Administration and will repay the obligation over 22½ years at a fixed interest rate of 2.38%. MTA's first draw on the loan was on September 20, 2016 in the amount of $146.5 million. MTA's second draw on the loan was on May 1, 2019 in the amount of $300.0 million.

6. 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 with no penalty.

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

Year	Principal	Interest	Total
2020	2,723	322	3,045
2021	2,744	257	3,001
2022	2,614	193	2,807
2023	2,305	135	2,440
2024	2,072	85	2,157
2025-2030	2,473	36	2,509
Total	14,931	1,028	15,959

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 semi-annually.

7. EMPLOYEE BENEFITS

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, pay for the administrative cost of running the Deferred Compensation Program.

In 1984, the MTA established the 457 Plan to provide benefits competitive with private industry. Only managerial employees were permitted to participate in the Plan and investment options were limited to five funds: a Guaranteed Interest Fund, a Common Stock Fund, a Money Market Fund, a Managed Fund, and a Stock Index Fund. Pursuant Internal Revenue Code ("Code") Section 457, the MTA has established a trust or custodial account to hold plan assets for the exclusive benefit of the participants and their beneficiaries. Participation in the 457 Plan is now available to non-represented employees and, after collective bargaining, most represented employees. All amounts of compensation deferred under the 457 Plan, and all income attributable to such compensation, less expenses and fees, are in trust for the exclusive benefit of the participants and their beneficiaries. Accordingly, the 457 Plan is not reflected on the MTA's consolidated statements of net position.

In 1985, the MTA Board adopted the 401(k) Plan, a tax-qualified plan under section 401(k) of the Code. The 401(k) Plan remained dormant until 1988 when an IRS ruling "grandfathered" the plan under the Tax Reform Act of 1986. 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 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 401(k) Plan received a favorable determination letter from the Internal Revenue Service dated October 27, 2016.

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:

1. Tier 1 – The MTA Target-Year Lifecycle Funds, which are comprised of a mix of several funds, most of which are available as separate investments in the Deferred Compensation Program. The particular mix of investments for each Fund is determined by the "target" date, which is the date the money is intended to be needed for retirement income.

2. 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 Russell Mid Cap Index.

3. 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 a selected index. These institutional strategies provide participants with a diversified array of distinct asset classes, with a single fund option in each class to simplify the decision making process.

4. Tier 4 – Self-Directed Mutual Fund Option is designed for the more experienced investors. Offers access to an expanded universe of mutual funds from hundreds of well-known mutual fund families. Participants may invest only a portion of their account balances in this tier.

In 2011, the Deferred Compensation Program began offering Roth contributions. Employees can elect after-tax Roth contributions and before-tax contributions in both the 401(k) Plan and the 457 Plan. The total combination of Roth after-tax contributions and regular before-tax contributions cannot exceed the IRS maximum of $18,500 in 2018 and $19,000 in 2019. For those over age 50, the maximums are $24,500 for 2018 and $25,000 for 2019.

Matching Contributions - MNR employees represented by certain unions 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%

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 – Nonvested contributions are forfeited upon termination of employment. Such forfeitures are used to cover a portion of the pension plan's administrative expenses. For the years ended December 31, 2019 and 2018, no forfeitures reduced the Plan's expense.

The following is a summary of activity for the 401k deferred compensation program:

	2019	2018
Contributions:		
Employee contributions, net of loans	$ 34,069	$ 32,126
Participant rollovers	2,817	2,318
Employer contributions	2,818	2,822
Total contributions	$ 39,704	$ 37,266

The Trustee for the MTA Deferred Compensation Program is Prudential Bank & Trust Federal Savings Bank. Record keeper and/or Administrative Services are provided by Prudential Retirement Insurance & Annuity Company ("PRIAC"). Investment management services are provided by Prudential Retirement Insurance & Annuity Company and Galliard Capital Management. Separate accounts are managed by TCW-Metropolitan West Asset Management, William Blair, Jackson Square Partners and Alliance Bernstein. The financial advisor is Mercer Investment Consulting, Inc. which reviews the investment policies adopted by the Investment Committee, the Plans' portfolios and the Investment Managers' performance.

Pensions — MTA Metro-North Railroad sponsors and participates in two defined benefit pension plans for their employees, the Metro-North Commuter Railroad Company Cash Balance Plan (the "MNR Cash Balance Plan") and the Metropolitan Transportation Authority Defined Benefit Plan (the "MTA Defined Benefit Plan"). A brief description of each of the pension plans follows:

Plan Descriptions

1. MNR Cash Balance Plan

The MNR Cash Balance Plan is a single employer, defined benefit pension plan administered by MTA Metro-North Railroad. The 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 the Employee Retirement Income Security Act (“ERISA”) of 1974.

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 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.

2. MTA Defined Benefit Plan

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

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

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

Benefits Provided

1. MNR Cash Balance Plan

Pension Benefits — Participants of the Plan obtain a nonforfeitable right to their accrued benefit upon the earlier of (a) the completion of 5 years of service with the 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 65. Participants of the MNR Cash Balance Plan may elect to receive the value of their accumulated plan benefits as a lump-sum distribution upon retirement or they may elect to receive their benefits as a life annuity payable monthly from retirement. Participants may also elect to receive their pension benefits in the form of a joint and survivor annuity.

Participants of the 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.

2. MTA Defined Benefit Plan

Pension Benefits — Retirement benefits are paid from the Plan to covered MTA Metro-North Railroad 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 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 Metro-North Railroad continue to make contributions to the Plan for 15 years. Certain represented employees of 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 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.

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 credited service for covered MTA Metro-North Railroad management and represented employees.

The disability retirement allowance for covered MTA Metro-North Railroad management is calculated based on the participant's credited service and final average salary ("FAS") but not less than ⅓ of FAS.
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 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 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 sixty-one. 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. This death benefit is payable in a lump sum distribution. Moreover, an accidental death benefit is payable for the death of a participant who is a covered MTA Metro-North Railroad employee 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.

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, retirement benefits establishment and changes are presented to the MTA Board and must be accepted and approved by the MTA Board.

Membership

Membership of the MNR Cash Balance Plan consisted of the following at January 1, 2019 and January 1, 2018, the date of the actuarial valuation:

	January 1, 2019	January 1, 2018
Active Plan Members	2	2
Retirees and beneficiaries receiving benefits	25	26
Vested formerly active members not yet receiving benefits	15	15
Total	42	43

Contributions and Funding Policy

1. MNR Cash Balance Plan

Funding for the 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 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 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 plan. MTA Metro-North Railroad anticipated that no further contributions would be made to the Plan. However, due to changes in actuarial assumptions and market performance, additional contributions were made to the Plan in several subsequent years.

Contributions as a percent of covered payroll were 2.97% and 2.03% for the years ended December 31, 2019 and December 31,2018, respectively. The actual contributions for the years ended December 31, 2019 and December 31, 2018 were $9 and $5, respectively.

2. MTA Defined Benefit Plan

MTA Metro-North Railroad's 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 Plan are recognized in the period in which the contributions are due.

The following summarizes the types of employee contributions made to the Plan:

Effective January 1, 1994, MTA Metro-North Railroad non-represented employees are required to contribute to the Plan to the extent that 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 contributing to the Plan. MTA Metro-North Railroad employees may purchase prior service from January 1, 1983 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 Plan been in effect for those years.

Covered MTA Metro-North Railroad represented employees who first became eligible to be Plan participants prior to January 30, 2008 contribute 3% of salary. Certain Metro-North represented employees, depending on their collective bargaining agreements, were required to make employee contributions until the completion of required years of credited service as per the relevant collective bargaining agreements.

Contributions as a percent of covered payroll were 16.97% and 16.60% for the years ended December 31, 2019 and December 31, 2018, respectively. The actual contributions for the years ended December 31, 2019 and December 31, 2018 were $122,819 and $116,005 respectively.

Net Pension Liability

MTA Metro-North Railroad's net pension liabilities for each of the pension plans reported at December 31, 2019 and December 31, 2018 were measured as of December 31, 2018 and December 31, 2017, respectively. The total pension liability at December 31, 2018 and December 31, 2017 for the MTA Defined Benefit Plan was determined by actuarial valuations as of the valuation date of January 1, 2018 and January

1, 2017, respectively. The total pension liability at December 31, 2018 and December 31, 2017 for the MNR Cash Balance plan was determined by actuarial valuations as of the valuation date of January 1, 2019 and January 1, 2018, respectively. Each of the pension plans total pension liabilities was calculated based on the discount rate and actuarial assumptions below and then projected forward to the measurement date. Information about the fiduciary net position of each qualified pension plan 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.

Actuarial Assumptions

The actuarial assumptions used in the January 1, 2019 and 2018 valuations for the MTA plans are based on the results of an actuarial experience study for the period from January 1, 2006 through December 31, 2011. The poat retirement mortality assumption is based on an experience analysis covering the period from January 1, 2011 to Decmber 31, 2015 for all MTA plans. The pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA, as recommended by the Society of Actuaries Retirement Plans Experience Committee. As generational tables, they reflect mortality improvements both before and after measurement date.

The total pension liability in the actuarial valuations was determined using the following actuarial assumptions for each of the pension plans as follows:

	January 1, 2019 MNR Cash Balance Plan	January 1, 2019 MTA Defined Benefit Plan	January 1, 2018 MNR Cash Balance Plan	January 1, 2018 MTA Defined Benefit Plan
Investment Rate of Return	4.0% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.	4.0% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.
Salary Increases	Not applicable	Varies by years of employment, and employee group.	Not applicable	Varies by years of employment, and employee group.
Inflation	2.5%	2.5%, 3.5% for Railroad Retirement Wage Base.	2.5%	2.5%, 3.5% for Railroad Retirement Wage Base.
Cost-of Living Adjustments	Not applicable	55% of inflation assumption or 1.375%, if applicable	Not applicable	55% of inflation assumption or 1.375%, if applicable

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	January 1, 2019 MNR Cash Balance Plan	January 1, 2019 MTA Defined Benefit Plan	January 1, 2018 MNR Cash Balance Plan	January 1, 2018 MTA Defined Benefit Plan
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 the MTA plans.	Pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA, as recommended by the Society of Actuaries Retirement Plans Experience Committee. Mortality assumption is based on an experience analysis covering the period from January 1, 2011 to December 31, 2015.	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 the MTA plans.	Pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA, as recommended by the Society of Actuaries Retirement Plans Experience Committee. Mortality assumption is based on an experience analysis covering the period from January 1, 2011 to December 31, 2015.
Pre-retirement	RP-2000 Employee Mortality Table for Males and Females with blue-collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue-collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue-collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue-collar adjustments.
Post-retirement-Healthy Lives	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.

	January 1, 2019 MNR Cash Balance Plan	January 1, 2019 MTA Defined Benefit Plan	January 1, 2018 MNR Cash Balance Plan	January 1, 2018 MTA Defined Benefit Plan
Post-retirement Disabled Lives	Not applicable	RP-2014 Disabled Annuitant mortality table for males and females.	Not applicable	RP-2014 Disabled Annuitant mortality table for males and females.

Expected Rate of Return on Investments

The long-term expected rate of return on pension plan investments was 4.00% for the MNR Cash Balance Plan as of January 1, 2019 and January 1, 2018 and 7.00% for the MTA Defined Benefit Plan as of January 1, 2019 and January 1, 2018. The best-estimate range for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation.

The target allocation and best estimates of arithmetic real rates of return ("RROR") for each major asset class included in each of the pension funds are as follows:

December 31, 2018	MNR Cash Balance Plan		MTA Defined Benefit 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	100.00 %	1.58 %	9.00 %	2.03 %
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 Market 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 as per Actuary		4.09 %		7.19 %
Portfolio Standard Deviation		3.90 %		10.87 %
Long Term Expected Rate of Return selected by MTA		4.00 %		7.00 %

Discount Rate

As of December 31, 2018 and December 31, 2017, the discount rates used to measure the total pension liability of the MNR Cash Balance and the MTA Defined Benefit Plan were 4.0% and 7.0%, respectively.

The projection of cash flows used to determine the discount rate assumed that plan contributions would be made in accordance with the Employer funding policy as projected by the Plan's actuary. Based on those assumptions, the 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 projected benefit payments to determine the total pension liability.

Changes in Net Pension Liability – MNR Cash Balance Plan

Changes in Metro-North Railroad's net pension liability for the Metro-North Cash Balance Plan for the year ended December 31, 2019, based on the December 31, 2018 measurement date and for the yearended December 31, 2018, based on the December 31, 2017 measurement date, are as follows:

December 31, 2019	**Metro-North Cash Balance Plan**		
	Total Pension Liability	**Plan Fiduciary Net Position**	**Net Pension Liability**
Balance as of December 31, 2017	$528	$523	$ 5
Changes for calendar year 2018:			
Interest on total pension liability	20	-	20
Effect of plan changes	-	-	-
Effect of economic /demographic (gains) or losses	(11)	-	(11)
Effect of assumption changes or inputs	-	-	-
Benefit payments	(58)	(58)	-
Administrative expense	-	0	(0)
Net investment income	-	-	-
Employer contributions	-	5	(5)
Balance as of December 31, 2018	$479	$471	$ 8

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December 31, 2018	Metro-North Cash Balance Plan		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balance as of December 31, 2016	$ 566	$ 574	$ (8)
Changes for calendar year 2017:			
Interest on total pension liability	21	-	21
Effect of plan changes	-	-	-
Effect of economic /demographic (gains) or losses	12	-	12
Effect of assumption changes or inputs	-	-	-
Benefit payments	(71)	(71)	-
Administrative expense	-	-	-
Net investment income	-	20	(20)
Employer contributions	-	-	-
Balance as of December 31, 2017	$ 528	$ 523	$ 5

MTA Metro-North Railroad's Proportionate Share of the Net Pension Liability – Metro-North Cash Balance Plan

The following presents MTA Metro-North Railroad's net pension liability as of December 31, 2019 calculated using the current discount rate at January 1, 2019 of 4.0% for the Plan, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (3%) or 1-percentage point higher (5%) than the current rate:

	1% Decrease 3.00%	Current Discount Rate 4.00%	1% Increase 5.00%
		(in whole dollars)	
Net Pension Liability	$35,157	$ 8,252	$(15,544)

The following presents MTA Metro-North Railroad's net pension liability as of December 31, 2018 calculated using the current discount rate at January 1, 2018 of 4% for the Plan, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (3%) or 1-percentage point higher (5%) than the current rate:

	1% Decrease 3.00%	Current Discount Rate 4.00%	1% Increase 5.00%
	(in whole dollars)		
Net Pension Liability	$35,109	$ 5,235	$(21,154)

MTA Metro-North Railroad's Proportionate Share of the Net Pension Liability – MTA Defined Benefit Plan

The following table presents MTA Metro-North Railroad's proportionate share of the net pension liability of the MTA Defined Benefit Plan at:

	December 31, 2018	December 31, 2017
MTA Metro-North Railroad's proportion of the net pension liability	35.24 %	36.10 %
MTA Metro-North Railroad's proportionate share of the net pension liability	$494,107	$370,698

MTA Metro-North Railroad's proportion of the respective Plan's net pension liability was based on actual required contributions of the participating employer for the calendar year.

The following table presents MTA Metro-North Railroad's proportionate share of the net pension liability as of December 31, 2019 based upon the January 1, 2019 actuarial valuation calculated using the discount rate of 7.00% for the MTA Defined Benefit Plan, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.0%) or 1-percentage point higher (8.0%) than the current rate:

	1% Decrease 6.0%	Current Discount Rate 7.0%	1% Increase 8.0%
MTA Metro-North Railroad's proportionate share of the net pension liability	$724,448	$ 494,107	$299,797

The following table presents MTA Metro-North Railroad's proportionate share of the net pension liability as of December 31, 2018 based upon the January 1, 2017 actuarial valuation calculated using the discount rate of 7.00% for the MTA Defined Benefit Plan, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.0%) or 1-percentage point higher (8.0%) than the current rate:

	1% Decrease 6.0%	Current Discount Rate 7.0%	1% Increase 8.0%
MTA Metro-North Railroad's proportionate share of the net pension liability	$ 595,006	$ 370,698	$ 177,715

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

MTA Metro-North Railroad recognized pension expense related to each pension plans as follows:

Pension Plans	December 31, 2019	December 31, 2018
MNR Cash Balance Plan	$ 3	$ 21
MTA Defined Benefit Plan	103,548	105,827
Total	$ 103,551	$ 105,849

At December 31, 2019, MTA Metro-North Railroad reported deferred outflow of resources and deferred inflow of resources for each pension plan as follows:

	MNR Cash Balance Plan		MTA Defined Benefit Plan		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	$ -	$ -	$ 63,854	$ (7,190)	$ 63,854	$ (7,190)
Changes in assumptions	-	-	2,848	(13,079)	2,848	(13,079)
Net difference between projected and actual earnings on pension plan investments	25		79,779	-	79,803	-
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	11,359		11,359	-
Employer contribution to plan subsequent to the measurement date of net pension liability	-	-	122,819	-	122,819	-
Total	$ 25	$ -	$ 280,658	$ (20,269)	$ 280,683	$ (20,269)

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At December 31, 2018, MTA Metro-North Railroad reported deferred outflow of resources and deferred inflow of resources for each pension plan as follows:

	MNR Cash Balance Plan		MTA Defined Benefit Plan		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	$ -	$ -	$ 51,007	$ (8,573)	$ 51,007	$ (8,573)
Changes in assumptions	-	-	3,396	(16,924)	3,396	(16,924)
Net difference between projected and actual earnings on pension plan investments	15	(2)		(40,756)	15	(40,758)
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	28,295		28,295	-
Employer contribution to plan subsequent to the measurement date of net pension liability	-	-	116,844	-	116,844	-
Total	$ 15	$ (2)	$ 199,542	$ (66,253)	$ 199,557	$ (66,254)

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 annual differences between expected and actual experience and the changes in proportion and differences between employer contributions and proportionate share of contributions are amortized over a 7.8 year closed period for the MTA Defined Benefit Plan, beginning in the year in which the deferred amount occurs.

The amounts of $122,819 and $116,844 reported as deferred outflows of resources related to pensions resulting from the Company's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the years-ended 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 (income) as follows:

Year ending December 31:	MNR Cash Balance Plan	MTA Defined Benefit Pension Plan	Total
2020	$ 11	$ 38,710	$ 38,721
2021	6	20,417	20,422
2022	4	22,193	22,197
2023	4	40,620	40,624
2024	-	8,815	8,815
Thereafter	-	6,844	6,844
Total	$ 25	$ 137,599	$ 137,623

8. OTHER POSTEMPLOYMENT BENEFITS

The MTA Metro-North 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 and related agencies retired employees and their eligible spouses and dependents, to fund some of the OPEB provided in accordance with the MTA Metro-North'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 cost-sharing multiple-employer defined benefit OPEB plan.

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

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

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

The MTA Metro-North Railroad 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 Metro-North Railroad must:

(a) have retired;

(b) be receiving a pension (except in the case of the 401(k) Plan);

(c) have at least 10 years of credited service as a member of the MTA Defined Benefit Plan, the MNR Cash Balance Plan, the 401(k) Plan or the VDC; and

(d) 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.

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.

Contributions — The MTA Metro-North Railroad 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 Metro-North paid $57,345 and $54,763 of PAYGO to the OPEB Plan, respectively.

During 2012, the MTA funded $250 million into the Trust and an additional $50 million during 2013. There have been no further contributions made to the Trust. The discount rate estimates investment earnings for assets earmarked to cover retiree health benefits. Under GASB Statement No. 75, the discount rate depends on the nature of underlying assets for funded plans. Since the amount of benefits paid in 2017 exceeded the current market value of the assets, a depletion date is assumed to occur immediately. Therefore, the discount rate is set equal to the municipal bond index. The MTA elected the Bond Buyer General Obligation 20-Bond Municipal Bond Index. As a result, the discount rates as of December 31, 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 December 31, 2017, the employer made a cash payment for retiree healthcare of $18,346 and $16,674, 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**	**2017**
(in thousands)	**Retirees**	**Retirees**
Total blended premiums	36,416	33,010
Employment payment for retiree healthcare	18,346	16,674
Net Payments	**54,762**	**49,684**

(2) Net OPEB Liability

At December 31, 2019 and December 31, 2018, the MTA Metro-North reported net OPEB liability of $1,553,115 and $1,571,315, respectively, for its proportionate share of the Plan. The net OPEB liability was measured as of the OPEB's Plan's fiscal year-ends of December 31, 2018 and December 31, 2017, respectively The total OPEB liability as of December 31, 2019 and December 31, 2018 was determined by an actuarial valuation date of July 1, 2017, and rolled forward to December 31, 2017 and December 31, 2018, respectively.. The MTA Metro-North's proportion of the net OPEB liability was based on a projection of the MTA Metro-North's long-term share of contributions to the OPEB Plan relative to the projected contributions of all participating employers. At December 31, 2019 and December 31, 2018, the MTA Metro-North's proportion was 7.92% and 7.63%, respectively.

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.

(3) Actuarial Assumptions

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

Projections of benefits for financial reporting purposes are based on the substantive plan, which refers to the plan terms as understood by the employer and the plan members at the time of the valuation, including only changes to plan terms that have been made and communicated to employees. The projections include the types of benefits provided at the time of each valuation and the historical pattern of sharing benefit costs between the employer and plan members at that time. The MTA Metro-North 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:

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	December 31, 2019	December 31, 2018
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 Scale - salaries are assumed to increase by years of service. Rates are shown below:

Managers Hired on or after January 1, 1988

Years of Service	Rate of Increase	Rate of Increase
0	6.00%	6.00%
1	5.00%	5.00%
2	4.25%	4.25%
3	4.00%	4.00%
4+	3.50%	3.50%

Represented Employees hired on of after January 1, 1998

Years of Service	Rate of Increase	Rate of Increase
0	3.25%	3.25%
1	10.50%	10.50%
2	10.00%	10.00%
3	9.75%	9.75%
4	9.25%	9.25%
5	14.75%	14.75%

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. The NYSHIP trend reflects actual increases in premiums to participating agencies through 2018 Long-term trend increases are 4% for dental and vision benefits and 4.5% for Medicare Part B reimbursements, but not more than projected medical and pharmacy trends excluding any excise tax adjustments.

The valuation reflects the actuaries 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 Metro-North's OPEB liability is approximately $49.6 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 NYSHIP trend assumptions (all amounts are in percentages).

	NYSHIP	
Fiscal Year	**< 65**	**>=65**
2018	8.50%	8.20%
2019	6.20%	5.50%
2020	5.80%	5.30%
2021	5.50%	5.20%
2022	7.20%	5.10%
2023	6.10%	5.10%
2024	6.10%	5.00%
2025	5.90%	5.00%
2026	5.90%	5.00%
2027	5.80%	4.90%
2037	5.60%	5.00%
2047	5.40%	5.90%
2057	5.10%	5.40%
2067	4.80%	5.00%
2077	4.20%	4.30%
2087	4.10%	4.20%
2097	4.10%	4.20%

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, and 4.3% for self-insured 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.

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.

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

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	Real Rate of Return
US Core Fixed Income	13.00%	2.03%
Global Bonds	15.00%	0.41%
Emerging Market Bonds	5.00%	3.76%
Global Equity	35.00%	5.65%
Non-US Equity	15.00%	6.44%
Global REITS	5.00%	5.80%
Hedge Funds-Muliti Strategy	12.00%	3.28%
Total	**100.00%**	
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% and December 31, 2017 of 3.44%.

Sensitivity of the MTA Metro-North Railroad's Proportionate Share of the Net OPEB Liability to Changes in the Discount

Rate — The following presents the MTA Metro-North Railroad's proportionate share of the net OPEB liability, as well as what the MTA Metro-North Railroad's proportionate share of the 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:

December 31, 2019	1% Decrease (3.10%)	Discount Rate (4.10%)	1% Increase (5.10%)
		(in thousands)	
Proportionate share of the net OPEB liability	$ 1,776,794	$ 1,553,175	$ 1,368,702

December 31, 2018	1% Decrease (2.44%)	Discount Rate (3.44%)	1% Increase (4.44%)
		(in thousands)	
Proportionate share of the net OPEB liability	$ 1,786,428	$ 1,571,315	$ 1,359,817

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

December 31, 2019	1% Decrease	Healthcare Cost Current Trend Rate *	1% Increase
		(in thousands)	
Proportionate share of the net OPEB liability	$ 1,326,691	$ 1,553,115	$ 1,837,737

December 31, 2018	1% Decrease	Healthcare Cost Current Trend Rate *	1% Increase
		(in thousands)	
Proportionate share of the net OPEB liability	$ 1,327,518	$ 1,571,315	$ 1,835,033

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

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

For the years ended December 31, 2019 and December 31, 2018, the MTA Metro-North Railroad recognized OPEB expense of $133,160 and $152,362, respectively, which represents its proportionate share of the Plan's OPEB expense.

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, changes in assumptions and the changes in proportion and differences between employer contributions and proportionate share of contributions are amortized over a 7.4 year closed period, beginning the year in which the deferred amount occurs.

The MTA Metro-North Railroad reported deferred outflows of resources and deferred inflows of resources related to OPEB as follows ($ in thousands):

	December 31, 2019		December 31, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 787	$ (1,330)	$ 898	$ -
Changes in assumptions	52,702	(123,362)	60,163	-
Changes in proportion	32,584	-		-
Net difference between projected and actual earnings on OPEB plan investments	1,471		-	(1,610)
Employer contributions to the plan subsequent to the measurement of net OPEB liability	57,345	-	54,762	-
Total	**$ 144,889**	**$ (124,692)**	**$ 115,823**	**$ (1,610)**

For the year ended December 31, 2018, $115,823 was reported as deferred outflows of resources related to OPEB. This amount includes both MTA Metro-North Railroad's contributions subsequent to the measurement date and an implicit rate subsidy adjustment that will be recognized as a reduction of the net OPEB liability in the year ended December 31, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB at December 31, 2018 will be recognized in OPEB expense as follows:

Year ending December 31:	
2020	$ (4,223)
2021	(4,223)
2022	(4,223)
2023	(3,805)
2024	(4,486)
Thereafter	(16,186)
	$ (37,148)

9. LEASES

Through 2006, MTA leased the properties associated with Harlem/Hudson Lines from American Premier Underwriters, Inc., formerly the Penn Central Corporation. MTA subleases these properties to the MTA Metro-North Railroad.

On April 8, 1994, MTA entered into an Amended and Restated Agreement of Lease with American Premier Underwriters, Inc. for the Harlem/Hudson Line properties including Grand Central Terminal. This agreement 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 agreement grants MTA an option to purchase the leased property after the twenty-fifth anniversary of the restructured lease. The restructured lease is comprised of both operating (for the lease of land) and capital (for the lease of buildings and track structures) elements. Deferred expenses of $5,146 have been recorded relating to the lease and will be amortized over the life of the lease. These deferred expenses are related to assumption of environmental liabilities and an incentive payment. In 2006, American Premier Underwriters, Inc. sold their rights to the leased property to Midtown Trackage Ventures, LLC. See Note 14 for the approval of MTA Board to purchase the leased property from Midtown Trackage Ventures, LLC.

On August 29, 2013, MTA Metro-North Railroad entered into a Fourth Lease Modification, Extension and Expansion Space Agreement with SLG Graybar Mesne Lease, LLC for space at 420 Lexington Ave, New York, NY 10170 also known as the Graybar Building (“Graybar”). This agreement extends the lease term originally expiring in 2016, for an additional term of approximately 20 years. In addition, the agreement grants the Company expanded square footage.

Total operating rent expense approximated $21,112 and $21,508 in 2019 and 2018, which includes office space leased from MTA amounting to $51 and $656 in 2019 and 2018.

At December 31, 2019, the future minimum lease payments under all noncancellable leases, including the Harlem/Hudson lease and office space leased from MTA and Graybar are as follows:

Operating	Harlem/Hudson Lease	Other	Total
2020	$ 578	$ 14,816	$ 15,394
2021	1,157	18,507	19,664
2022	1,157	18,050	19,207
2023	1,157	17,636	18,793
2024	1,157	17,441	18,598
2025-2029	5,784	86,618	92,402
2030-2034	5,784	79,907	85,691
2035-2039	5,784	-	5,784
2040-2044	5,784	-	5,784
2045-2049	5,784	-	5,784
Thereafter	260,271	-	260,271
	$ 294,397	$ 252,975	$ 547,372

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Capital	**Harlem/Hudson Lease**
2020	$ 443
2021	887
2022	887
2023	887
2024	887
2025-2029	4,434
2030-2034	4,434
2035-2039	4,434
2040-2044	4,434
2045-2049	4,434
Thereafter	199,514
	225,675
Amount representing interest	(212,240)
Present value of capital lease obligations	13,435
Less current portion	0
Long-term liability	$ 13,435

All operating and capital payments subsequent to 2048 pertain to the lease for the Harlem/Hudson line properties that, if extended according to the terms of the lease, will expire in 2274.

Liabilities relating to equipment under capital leases have been assumed by MTA.

A summary of activity for the capital lease obligation for the years ended December 31, 2019 and 2018 is presented below:

	2019	2018
Balance—beginning of year	$ 13,593	$ 13,893
Activity during the year:		
Principal payments on lease	(158)	(300)
Balance—end of year	13,435	13,593
Less current portion		(158)
Long-term liability	$ 13,435	$ 13,435

10. ESTIMATED LIABILITY ARISING FROM INJURIES TO PERSONS

A summary of activity in estimated liability arising from claims related to injuries to persons, including employees, and damage to third-party property, for the years ended December 31, 2019 and 2018, is presented below:

	2019	2018
Balance—beginning of year	$ 75,493	$ 74,402
Activity during the year:		
Current year claims and changes in estimates	23,500	25,860
Claims paid—settlements only	(28,538)	(24,769)
Balance—end of year	70,455	75,493
Less current portion	(15,250)	(15,523)
Long-term liability	$ 55,205	$ 59,970

11. ESTIMATED LIABILITY FOR POLLUTION REMEDIATION OBLIGATIONS

MTA Metro-North Railroad has implemented GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*. The statement establishes standards for determining when expected pollution remediation outlays should be accrued as a liability or, if appropriate, capitalized. An operating expense and corresponding liability, measured at its current value using the expected cash flow method, have been recognized for certain pollution remediation obligations that are no longer able to be capitalized as a component of a capital project.

Pollution remediation obligations, which are estimates and subject to changes resulting from price increases or reductions, technology, or changes in applicable laws or regulations, occur when any one of the following obligating events takes place:

- An imminent threat to public health due to pollution exists
- MTA Metro-North Railroad is in violation of a pollution prevention-related permit or license
- MTA Metro-North Railroad is named by a regulator as a responsible or potentially responsible party to participate in remediation
- MTA Metro-North Railroad is named or there is evidence to indicate that it will be named in a lawsuit that compels participation in remediation activities, or
- MTA Metro-North Railroad voluntarily commences or legally obligates itself to commence remediation efforts

MTA Metro-North Railroad does not anticipate any changes in the near future that would have a material impact on the recorded obligations due to changes resulting from price increases or reductions, technology, or changes in applicable laws or regulations. In addition, MTA Metro-North Railroad does not expect any recoveries of cost that would have a material effect on the recorded obligations.

In accordance with GASB Statement No. 49, pollution remediation expense provisions totaling $3.1 million and $17.4 million were recorded on the Statement of Revenues, Expenses and Changes in Net Position for the years ended December 31, 2019 and 2018, respectively. The expense provision was measured at its current value utilizing the prescribed expected cash flow method.

As of December 31, pollution remediation liabilities of $0.71 million (short-term) and $20.1 million (long-term) for 2019 and $0.71 million (short-term) and $18.2 million (long-term) for 2018 were recorded. These consist primarily of future remediation activities associated with lead and asbestos abatement.

12. RELATED PARTY TRANSACTIONS

The MTA Metro-North Railroad and other affiliated MTA agencies receive support from MTA in the form of budget, cash management, finance, legal, real estate, treasury, risk and insurance management, and other services, some of which are charged back. The MTA Metro-North Railroad’s subsidies from MTA for use in operations are recorded as credits to operations when received. Funds for the MTA Metro-North Railroad’s capital project expenditures are also provided by MTA. The MTA Metro-North Railroad recognizes funds contributed by MTA for the MTA Metro-North Railroad’s capital project expenditures as nonoperating revenue.

The MTA Metro-North Railroad also sells joint prevalued fare cards on consignment on behalf of an affiliated agency. These amounts are reflected in the accompanying statements of net position. The following table shows the dollar volume of such related party transactions at December 31, 2019 and 2018:

	2019	**2018**
Payments to MTA and affiliated agencies	$195,657	$194,110
Payments from MTA and affiliated agencies	164,268	136,693

The resulting receivables and payables from the above transactions are recorded in the due from/to MTA and affiliated agencies account included in the accompanying statements of net position.

Due from/to MTA and affiliated agencies consists of the following at December 31, 2019 and 2018:

	2019		2018	
	Receivable	(Payable)	Receivable	(Payable)
MTA	$81,714	$(129,388)	$75,893	$(48,140)
Affiliated agencies	304	(10,369)	319	(16,649)
Total MTA and affiliated agencies	$82,018	$(139,757)	$76,212	$(64,789)

In addition, MTA Metro-North Railroad had investments in the MTA Investment Pool of $7,731 and $18,983 at December 31, 2019 and 2018, respectively.

On July 29, 1998, the MTA, the MTA New York City Transit and Triborough Bridge and Tunnel Authority ("MTA Bridges and Tunnels") entered into a lease and related agreements whereby each agency, as sub lessees, will rent an office building at Two Broadway in lower Manhattan, for an initial lease term through June 30, 2048, renewable for two additional 15-year terms. Through separate triple-net sublease agreements, the lease was appointed 21% to MTA, on behalf of the MTA Long Island Railroad and the MTA Metro-North Railroad, 68.7% to the MTA New York City Transit, and 10.3% to the MTA Bridges and Tunnels. Total annual rental payments over the initial lease term are $1.6 billion. Base building and tenant improvements at Two Broadway were financed through the issuance by MTA of Two Broadway Certificates of Participation. The MTA Long Island Railroad and the MTA Metro-North Railroad are obligated to pay 21% of the ground lease payments and payments relating to the Two Broadway Certificates of Participation. Pursuant to an agreement by and among the MTA, the MTA Long Island Railroad, the MTA Metro-North Railroad, the MTA New York City Transit and the MTA Bridges and Tunnels; the MTA New York City Transit and the MTA Bridges and Tunnels have agreed to reimburse the MTA Long Island Rail Road and the MTA Metro-North Railroad for the space occupied by the MTA New York City Transit and the MTA Bridges and Tunnels. Presently, the MTA, the MTA New York City Transit and the MTA Bridges and Tunnels occupy substantially all of the space at Two Broadway and rent is paid directly to the landlord.

13. OTHER LONG-TERM LIABILITIES

MTA Metro-North Railroad has recorded $1,527 in 2019 and $1,537 in 2018 for the deferred rent related to the Graybar lease (see Note 9). A summary of activity in other long-term liabilities for the years ended December 31, 2019 and 2018, is presented below:

	2019	2018
Balance—beginning of year	$ 22,005	$ 20,571
Activity during the year:		
Deferred rent on lease	1,527	1,537
Payments	(145)	(92)
Other	(11)	(11)
Balance—end of year	$ 23,376	$ 22,005

14. COMMITMENTS AND CONTINGENCIES

From time to time, the MTA Metro-North Railroad becomes aware of the existence of pollutants and/or hazardous waste at MTA Metro-North Railroad facilities. When estimates can be made of the cost to remediate pollutants and/or hazardous waste at MTA Metro-North Railroad facilities, amounts are recorded in the financial statements.

Management has reviewed with counsel all actions and proceedings against or involving the MTA Metro-North Railroad, including personal injury claims. While 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 such actions will not be material to the financial position, results of operations or cash flows of the MTA Metro-North Railroad.

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 questioned costs may occur, ultimate repayments required of the MTA or the MTA Metro-North Railroad have been infrequent in prior years.

15. ASSET IMPAIRMENT AND RELATED EXPENSES

The MTA allocated $367.7 million in the 2019 amendment to the 2010-2014 Capital Program for MTA Metro-North Railroad Superstorm Sandy capital restoration/repair projects to restore the railroad to pre-storm conditions, including shoreline restoration and tree-cutting, and power, communications and signal infrastructure improvements along over 30 miles of the Hudson Line. These improvements include raising the elevation of critical equipment as feasible. MTA Metro-North Railroad also identified a need for resiliency projects to better protect the system against future weather events. Metro-North received FTA funding to progress some of the Superstorm Sandy Resiliency projects and continues to work closely with the MTA to advance resiliency projects. A total of $95.8 million has been allocated in the 2010-2014 Capital Program for these projects, which include efforts to design and build elevated steel equipment platforms along the 30 miles of the Hudson Line, as well as perimeter protection, waterproofing, hardening of substations and train yard buildings, and installation of video and electronic monitoring of Metro-North facilities and infrastructure. Metro-North has also updated design guidelines to incorporate resiliency as feasible for future core program investments to better prepare for future climatic events. In the 2015-2019 Capital Program, MTA Metro-North Railroad has updated design guidelines to incorporate resiliency as feasible for core program investments to better prepare for future climatic events. As of December 31, 2019, $457.5 million has been allocated for Super Storm Sandy Restoration and Resiliency work; $335.1 million for power, $113.3 million for communication and signal improvements and $9.1 million for right of way and rolling stock restoration.

On February 3, 2015, a MTA Metro-North Railroad Harlem Line train struck an automobile in a highway-rail grade crossing between the Valhalla and Hawthorne stations. The driver of the automobile and five passengers on the train were killed and a number of passengers and the train engineer were injured. As a result of this incident, two M-7 cars were destroyed. An impairment loss of $2.9 million was recorded in 2015. The National Transportation Safety Board (NTSB) has completed an investigation into the contributing causes of the accident and determined the actions of the driver to be the probable cause of the incident. Nonetheless, there is insufficient information to permit reasonable estimation of the total losses that may be associated with defense of claims against the Company arising from the February 3, 2015 grade crossing incident. As described in Footnote 2 above, Metro-North has insurance for liability claims under the MTA all-agency excess liability policy issued by First Mutual Transportation Assurance Company (FMTAC), which insurance would provide coverage to the Company were losses to be incurred by the Company in resolving claims from the February 3, 2015 grade crossing in an amount exceeding the Company's $11 million self-insured retention, in addition to which there is excess insurance provided by third-party insurers.

16. SUBSEQUENT EVENTS

The New York State Fiscal Year 2019-2020 Enacted Budget established the Central Business District Tolling Program (CBD Tolling Program), the goals of which are to reduce traffic congestion in the Manhattan Central

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

On February 28, 2020, MTA closed on the purchase of Grand Central Terminal, and the Harlem and Hudson railroad lines for approximately $33 million. The purchase puts an end to a 280-year lease that gave the MTA a one-time window of opportunity to buy the assets.

Updated Assessment of Impacts from the COVID-19 Pandemic on MTA and MTA Bridges and Tunnels Finances and Operations

***Background Relating to the Global Coronavirus Pandemic*.** The novel coronavirus ("COVID-19") outbreak is continuing to have an adverse and severe impact on MTA's financial condition and operating results. 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 12, 2020, the World Health Organization declared the COVD-19 outbreak to be a pandemic in the face of the global spread of the virus. The COVID-19 pandemic has dramatically altered the behavior of businesses and people in a manner that is having negative effects on global and local economies. In addition, stock markets in the U.S. and globally, have seen significant declines and volatility attributed to concerns over COVID-19, and capital markets remain disrupted. These adverse impacts have intensified and continue to evolve daily globally, nationally, and particularly within the State and MTA's service area, which has become the most severely impacted region in the United States, with the most confirmed cases of infection and regrettably the most fatalities from COVID-19. On March 7, 2020 Governor Cuomo declared a Disaster Emergency in the State of New York and on March 13, 2020 President Trump declared a national state of emergency as a result of the COVID-19 pandemic. In addition, by order of Governor Cuomo ("New York State on PAUSE"), as of Sunday, March 22nd, all non-essential businesses Statewide were required to be closed, among other restrictive social distancing and related measures. These related measures, most recently, include by Governor's Executive Order, that effective at 8 p.m. on Friday, April 17, 2020 any individual who is over age two and able to medically tolerate a face-covering shall be required to cover their nose and mouth with a mask or cloth face-covering when in a public place and unable to maintain, or when not maintaining, social distance. New York State on PAUSE restrictions remain in place at least through May 15, 2020. This intervention to fight the aggressive spread of the COVID-19 pandemic has further eroded already severely diminished public transportation and bridge and tunnel usage during the duration of the COVID-19 pandemic.

Currently Adopted Federal Legislative and Administrative Actions. The Federal government has taken several actions which are expected to provide flexibility and substantial additional funding to MTA. The Federal Transit Administration ("FTA") has given transit grantees, including MTA, the flexibility to apply certain existing grant program proceeds, previously only available for capital expenditures, to be applied for operating expenses or other purposes to address COVID-19 pandemic impacts.

In addition, Federal emergency legislation, the “Coronavirus Aid, Relief and Economic Security Act” or “CARES Act”, received final passage by Congress and was signed into law by the President on March 27, 2020. The CARES Act through FTA’s formula funding provisions is expected to provide approximately $3.8 billion to MTA. Funding will be provided at a 100 percent Federal share, with no local match required, and will be 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.
MTA is also eligible for FEMA payments in addition to the CARES Act funding. FEMA will cover expenses that are over and above normal costs that are related to COVID-19, such as sanitizing MTA facilities and safety at job sites to ensure COVID -19 regulations are being adhered to.

Updated Assessment of 2020 Impacts of the COVID-19 Pandemic and Economic Study Analysis. On April 16, 2020, MTA Chairman and Chief Executive Officer Patrick J. Foye wrote to the New York State Congressional delegation, urging Congressional action to provide an additional $3.9 billion in Federal grant assistance “to stem the immediate hemorrhaging in the MTA’s 2020 operating budget”. Such aid would be supplemental to the approximately $3.8 billion contained in the CARES Act, and would have to be included in any upcoming new Congressional COVID-19 aid package, and is also exclusive of any capital infrastructure stimulus funding to be considered by Congress and the Administration.

The CARES Act funding amounts for MTA derived from a conservative estimate based on the information MTA management had at the time. A clearer picture of the impact of the crisis has emerged over the last few weeks, and now with the aid of a detailed economic study led by McKinsey & Company (the “McKinsey Report”), MTA management projects the full 2020 financial impact of the COVID-19 crisis to the MTA to be between $7.0 and $8.5 billion. After the receipt of the expected $3.8 billion under the CARES Act, the net financial impact in 2020 is estimated to be between $3.2 and $4.7 billion. The $3.9 billion request is the midpoint of this range.

Compared to 2019 results, ridership has now declined 93 percent on the subways, 95 percent on MTA Metro-North Railroad, and 97 percent on the Long Island Rail Road, with equally reduced ridership on buses. Crossings at MTA Bridges and Tunnels facilities are down by an estimated 62% from 2019 figures. Based on the current ridership and reasonable forecasts of a slow return to higher (but not pre-COVID-19 pandemic) levels in 2020, MTA, based upon projections in the McKinsey Report, expects to see combined losses in fare and toll revenues of between $4.7 and $5.9 billion in 2020, and additional impacts in 2021. Projections for 2021 are of necessity more speculative at this time and were beyond the scope of the McKinsey Report.

Moreover, the McKinsey Report, based upon limited available data, forecasts losses of between $1.6 and $1.8 billion in State and local taxes dedicated to MTA in 2020 as a result of the extraordinary economic downturn facing the region and nation.

Finally, MTA is also incurring additional expenses related to ensuring the safety of employees and riders, by disinfecting stations, rolling stock and work spaces to a new, even more costly level. The McKinsey Report estimates these incremental operational expenses for 2020 to be between $700 and $800 million (inclusive of a portion of the $300 million COVID-19 annualized costs estimate referred to in the March 25th Supplement). The dedication of MTA workers has come at the highest cost in illness and loss of life. Sixty-eight MTA employees have tragically passed away due to COVID-19. MTA New York City Transit alone has more than 2,400 subway and bus employees who have tested positive for COVID-19. Another

4,400 are on home quarantine and thousands more are calling out sick. MTA does not expect those overhead costs to decline, but instead to increase as ridership returns.

The McKinsey Report provided an estimate of the shortfalls discussed below through the end of calendar year 2020, ranging between $3.2 and $4.7 billion after accounting for the $3.8 billion the MTA is expected to receive through the CARES Act.

By way of background to the McKinsey Report forecasts, on March 17, 2020, five days before the stay-at-home order went into effect for New York State, MTA projected that it would face a 2020 budget shortfall of at least $4 billion in fare and toll revenues, based upon then current ridership and bridge and tunnel crossings declines. This estimate explicitly did not take into account the impact of the COVID-19 pandemic on taxes and other dedicated revenue streams that support MTA's operations. Approximately, one month later, it is now clear that the COVID-19 pandemic is more severe and of longer duration than had been anticipated. The impact to MTA's finances is material and leaves a gap that must be filled in order to sustain normal operations. MTA has begun refining the fare and toll revenue loss projections to reflect these changes, as well as projecting losses in the tax and other subsidy revenues that generally make up approximately one-half of MTA's total revenue sources. McKinsey & Company was contracted by MTA to analyze the potential impact of the COVID-19 pandemic on MTA's 2020 calendar year revenues.

As noted above, this analysis did not attempt to capture the impact of the COVID-19 pandemic on MTA finances in 2021. A view of 2021 will need to be developed when the key factors that influence it; the course of the virus, public health responses, including social isolation measures, and the trajectory of the economic recovery, can be seen with greater clarity. The McKinsey Report focused on operating costs and did not make any assumptions related to additional capital expenditures that MTA may incur over the course of the COVID-19 pandemic. It is limited to giving an initial view of additional operating costs.

In general, the McKinsey Report reviewed two scenarios for how revenues may be affected in the full calendar year 2020. The scenarios developed reflected different assumptions for how transit and commuter rail ridership and bridge and tunnel traffic will behave across several variables. The report further analyzed MTA's dedicated revenue streams and the impact of the COVID-19 pandemic on the variety of economic activity that generates much of the dedicated tax component of this revenue stream. The estimated incremental negative revenue impacts on MTA, after accounting for the CARES Act assistance of $3.8 billion, ranged from $3.2 billion to $4.7 billion. The midpoint between these two scenarios, $3.9 billion, was selected as the basis of MTA's April 16th request to Congress.

There is substantial risk that the higher end of the range could materialize based on uncertainties in the course of the COVID-19 pandemic, the speed of development and mass promulgation of high-volume clinical testing and protocols, the availability of medical supplies and equipment, continued public adherence to protective policies, and Federal policy response.

MTA Liquidity Resources. MTA currently has liquidity resources, consisting of a current running cash balance, internal available flexible funds, OPEB resources and commercial bank lines of credit totaling $1.201 billion ($1.0 billion of which has been drawn). *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.*

Longer-term resource options to address the COVID-19 pandemic impacts, may include, but are not limited to, (i) approximately $4 billion in federal emergency transit grants pursuant to the CARES Act, (ii) replacing programmed pay-as-you-go capital funds with long term bonding, (iii) various debt restructuring options generating potential resources depending upon market conditions and other matters, and (iv) applying new, federal FTA grant flexibility rules to use in the current federal fiscal year for operating relief in the emergency. The MTA Board on March 25, 2020 authorized MTA to secure an additional $2 billion in commercial bank lines of credit market conditions permitting. Also, see the additional significant financial assistance and flexibility provided in the State's FY 2020-21 Enacted Budget. There can be no assurance that MTA will be successful in securing additional lines of credit.

As noted above, exercising these options would come at a cost, including increased longer-term borrowing and potential adverse impacts on the timing of MTA initiatives to improve its systems. The loss of farebox and toll revenues, potential declines in State and local, as well as reprogramming of available federal and possibly State generated funding support for capital purposes, to urgent financial needs, will result in delays and shortfalls in implementing Capital Plan projects. The full impact of the COVID-19 pandemic on Capital Plan implementation cannot be determined at this time.

Finally, as is provided in the February Plan, MTA relies in State and local subsidies and dedicated taxes. The financial stress which MTA is experiencing as a result of the COVID-19 pandemic is being similarly felt at all levels of the government and in the social and financial lives of MTA patrons and State and local residents. This can be expected to have a substantial adverse impact on State and local revenues, on dedicated tax collections, and thus on the capacity of the State and local governments to maintain or raise the level of financial support to MTA during this crisis.

NY Essential Service Plan. On March 24, 2020, MTA management announced the implementation of the "NY Essential Service Plan ("Service Plan")." The Service Plan is designed to ensure healthcare workers, first responders and essential personnel are able to get to and from work by public transportation. MTA New York City Transit, MTA Long Island Rail Road and MTA Metro-North Railroad have implemented temporary reduced service schedules.

The Service Plan includes the following specific measures:

- **Subways and Buses:** On the subways, beginning March 25, 2020, service reductions were implemented. The service changes preserve MTA New York City Transit's a.m. and p.m. peak service to get first responders and essential personnel to their destinations. Some lines will not run Monday through Friday, including the B, W and Z lines, which will be covered by other local service. Some express services and branches on some lines will operate only local service. MTA New York City Transit will continue to undertake a line-by-line, hour-by-hour analysis of ridership, retaining flexibility to increase service as necessary.

  The Service Plan for buses started on March 26, 2020. The plan retains 75 percent of normal bus service, allows the MTA to serve essential workers and reduce crowding on transit and in crew facilities. Customers who still need to use buses for essential activities will continue to be accommodated. At the same time, the maximum number of buses needed will be substantially reduced, requiring fewer operators and lessening crowding of depot facilities.

- **Long Island Rail Road and Metro-North**: MTA Long Island Rail Road will have over 500 weekday trains running, compared to a normal weekday of over 740 trains, beginning March 27, 2020. MTA Long Island Rail Road will also have crews and equipment on standby to supplement service if necessary.

  Beginning on March 27, 2020, MTA Metro-North Railroad will provide hourly service on the Harlem, Hudson and New Haven lines, with extra trains added during peak times. Normal weekday capacity will be reduced by approximately 50 percent when compared to a normal weekday. The reduced schedule will run 424 trains, down from 713 during a normal schedule.

Beginning the weekend of April 4/April 5, MTA Metro-North Railroad will provide hourly service while also suspending shuttle service between Wassaic and Southeast on the Upper Harlem line.

- **Paratransit:** The paratransit program has eliminated shared rides, in accordance with the recommended public health guidance, and extended eligibility for existing Access-A-Ride customers. The paratransit system continues to have capacity to serve demand.

All of the foregoing service changes are described on MTA website, the MYmta app and on countdown clocks in stations and on platforms.

The schedule changes follow the Governor's "New York State on PAUSE" order, which directed New Yorkers use of public transportation for only essential travel and attempts to limit potential exposure by spacing out riders by six feet. MTA New York City Transit, MTA Bus Company, MTA Long Island Rail Road and MTA Metro-North Railroad continue their aggressive disinfecting procedures at each of its stations twice daily, and continue daily sanitization of its fleet of rolling stock with the full fleet of train cars and buses disinfected every 72 hours or less. The Access-A-Ride dedicated fleet is disinfected daily. Surfaces frequently used by customers in stations, such as turnstiles, MetroCard and ticket vending machines, and handrails, will be disinfected twice daily with EPA-approved and National Centers for Disease Control-endorsed disinfectants.

MTA is employing its pandemic plan, which is updated regularly, and serves as a blueprint guiding the MTA's response in accordance with Federal, State and local authorities. Through the end of March, MTA has distributed the following resources to operating employees: masks, gloves to those whose jobs require it, bottles of hand sanitizer, gallons of cleaning supplies and boxes of sanitizing wipes. Additionally, MTA continues to replenish and maintain a stockpile of these essential items so that MTA can continue to distribute them as needed. In addition, to these actions, MTA has taken a number of aggressive steps to ensure worker safety, including reducing the number of crews that need to report to work, implementing rear-door boarding to ensure social distance for bus operators, eliminating cash transactions and, as detailed above, disinfecting workplaces, trains, business and all rolling stock, among other actions. MTA is also working closely with the National Centers for Disease Control, the State Department of Health, and other government agencies during this time.

Capital Plan Procurement and Construction Contract Delays. MTA Construction and Development Company ("MTACDC") is currently evaluating the impacts of the COVID-19 pandemic on MTA's Capital Plans. MTACDC expects to reassess a path forward for implementation of the Capital Plans in the face of the COVID-19 pandemic in 60 days. In the meantime, MTACDC will cease the award of new Capital Plan construction or consulting contracts and, with few exceptions, MTACDC is, effective April 1, 2020, suspending action on open solicitations for all such contracts. With limited exceptions, the dates for submission of bids, requests for qualification and requests for proposals for open solicitations for MTACDC, or for any other capital budget-funded MTA projects, will be adjourned until further notice. Similarly, currently scheduled qualification hearings and pre-bid conferences have been cancelled and will be rescheduled as appropriate. The full impact of the COVID-19 pandemic on Capital Plan implementation cannot be determined at this time.

New York State Fiscal Year 2020-21 Budget Provisions of Importance to MTA. Several provisions in the State's fiscal year 2020-21 budget (as passed by both the State Assembly and State Senate and signed by the Governor on April 3, 2020 the "State FY 2020-21 Enacted Budget"), are intended to provide significant financial assistance and flexibility to aid MTA in addressing the adverse impacts caused by the COVID-19 pandemic. Among the provisions in the State FY 2020-21 Enacted Budget addressing MTA's needs are the following:

(i) amends existing law to allow MTA to use monies in the Central Business District Tolling Lockbox Fund (the "CBD Tolling Lockbox Fund") for two years (2020 and 2021) to offset decreases in revenue (i.e. lost taxes, fees, charges, fares and tolls) or increases in operating costs due in whole or in part to the State emergency disaster caused by the COVID-19 pandemic. The CBD Tolling Lockbox Fund currently includes Internet sales tax revenue and mansion tax revenue that will be used for operations. In the future, CBD tolling revenue will be added when that program is up and running, although CBD tolling revenue may be restricted under Federal law to capital expenses. All revenues deposited in such fund were under prior law only available for capital costs of MTA's 2020-24 Capital Plan and successor capital plans, and costs of the Central Business District tolling program. This provision also provides that if MTA receives funds/reimbursements from Federal government or insurance due to the COVID-19 pandemic, MTA must repay the CBD Tolling Lockbox Fund, but only after it has first fully repaid any COVID-19 pandemic related public or private borrowings, draws on lines of credit; issuances of revenue anticipation notes, internal loans; or use of corpus of MTA's OPEB trust;

(ii) amends existing law to increase MTA's bond cap from $55.497 billion to $90.1 billion through 2024;

(iii) creates new authorization for MTA to issue up to $10 billion of bonds for three years (2020-2022) to offset decreases in revenue (i.e. lost taxes, fees, charges, fares and tolls) or increases in operating costs of the MTA and its Related Entities due in whole or in part to the State disaster emergency caused by the COVID-19 pandemic;

(iv) commits the State and the City to each pay $3 billion to fund capital costs of the MTA's 2020-2024 Capital Plan. Additionally,

- State's Director of the Budget will determine schedule for the City's payments of its $3 billion share to MTA,

- if the City does not pay in full any of its scheduled payments, the Director of the Budget shall require the State Comptroller to intercept aid to localities appropriations to the City, or any other revenue source of the City, including sales and use tax, in an amount equal to the City's unpaid balance and deposit it into a newly established State-held fund, the MTA Capital Assistance Fund, and

- the State Comptroller must pay monies deposited in the MTA Capital Assistance Fund to MTA without appropriation, and

(v) requires the City, beginning on July 1, 2020, to pay one-half of the MTA's net paratransit operating expenses for four years: 2020, 2021, 2022, and 2023, and provides a statutory mechanism to intercept funds otherwise available to the City to insure payment of the City's share, if necessary. The City's contribution for each of those years is capped in the law as follows: 2020: $215 million; 2021: $277 million; 2022: $290 million; and 2023: $310 million

Dedication of 341-7 Madison Avenue Redevelopment Proceeds to MTA Capital Program. MTA and the City of New York announced on April 2, 2020, an agreement on a site-specific value capture strategy to speed development of 341-7 Madison Avenue, the site of the MTA's former headquarters in midtown Manhattan. Real estate taxes and other revenue generated from the future ground lease for the redevelopment of the property will be dedicated to the MTA capital program. The redevelopment plan is projected to generate more than $1 billion over the life of the ground lease to fund approved MTA New York City Transit projects. The agreement is part of the City of New York's commitment to provide $600 million from alternative non-tax-levy revenue sources as part of its $2.66 billion contribution to MTA's 2015-2019 Capital Plan.

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COVID-19 Family Benefits Agreement. On April 14, 2020, the MTA, Transport Workers Union Local 100 (TWU), the International Association of Sheet Metal, Air, Rail and Transportation Workers (SMART), and International Brotherhood of Teamsters Local 808 (IBT) reached an agreement on COVID-19 family benefits for transportation workers tragically lost in the pandemic. The benefits include a payment of $500,000 from the MTA to the surviving family of any worker who lost their life as a result of COVID-19, in addition to providing health insurance to the spouse and dependents to the age of 26 of the surviving family for three years. The MTA continues to have ongoing discussions with all labor partners to extend the COVID-19 family benefits agreement to all members of its represented workforce. The agreement will also be extended to all non-represented employees. The agreement is subject to Board ratification on April 22, 2020.

* * * * * *

REQUIRED SUPPLEMENTARY INFORMATION
(UNAUDITED)

METRO-NORTH COMMUTER RAILROAD COMPANY
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF CHANGES IN THE MTA METRO-NORTH COMMUTER RAILROAD COMPANY'S NET PENSION LIABILITY AND RELATED RATIOS FOR THE METRO-NORTH COMMUTER RAILROAD COMPANY CASH BALANCE PLAN AT DECEMBER 31:
(In thousands, except %)

	2018	2017	2016	2015	2014
TOTAL PENSION LIABILITY:					
Service cost	$ -	$ -	$ -	$ -	$ -
Interest	20	21	24	29	32
Effect of liability gains and losses	(11)	12	(15)	(10)	-
Effect of assumption changes or inputs	-	-	-	18	-
Benefit payments and withdrawals	(58)	(71)	(77)	(113)	(88
Net change in total pension liability	(49)	(38)	(68)	(76)	(56
TOTAL PENSION LIABILITY—Beginning	528	566	634	710	766
TOTAL PENSION LIABILITY—Ending(a)	479	528	566	634	710
FIDUCIARY NET POSITION:					
Employer contributions	$ 5	$ -	$ 23	$ 18	$ -
Net investment income	0	20	16	6	41
Benefit payments and withdrawals	(58)	(71)	(77)	(113)	(88
Administrative expenses	-	-	-	3	(3
Net change in plan fiduciary net position	(52)	(51)	(38)	(86)	(50
PLAN FIDUCIARY NET POSITION—Beginning	523	574	612	698	748
PLAN FIDUCIARY NET POSITION—Ending(b)	471	523	574	612	698
EMPLOYER'S NET PENSION LIABILITY—Ending(a)-(b)	$ 8	$ 5	$ (8)	$ 22	$ 12
PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY	98.28 %	99.01 %	101.39 %	96.56 %	98.36
COVERED-EMPLOYEE PAYROLL	$ 278	$ 268	$ 648	$ 995	$ 2,080
EMPLOYER'S NET PENSION LIABILITY AS A PERCENTAGE OF COVERED-EMPLOYEE PAYROLL	2.97 %	1.95 %	(1.22)%	2.20 %	0.56

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available, in accordance with GASB Statement No. 68. Information was not readily available for periods prior to 2014.

METRO-NORTH COMMUTER RAILROAD COMPANY
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF THE MTA METRO-NORTH COMMUTER RAILROAD COMPANY'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY IN THE MTA DEFINED BENEFIT PENSION PLAN AT DECEMBER 31:
(In thousands, except %)

at December 31:	2018	2017	2016	2015	2014
Proportion of the net pension liability	35.24 %	36.10 %	36.33 %	35.43 %	35.29 %
Proportionate share of the net pension liability	$ 494,107	$ 370,698	$ 460,804	$ 457,065	$ 365,081
Actual covered-employee payroll	$ 627,407	$ 589,000	$ 598,291	$ 562,928	$ 471,918
Proportionate share of the net pension liability as a percentage of the Authority's covered-employee payroll	78.75 %	62.94 %	77.02 %	81.19 %	77.36 %
Plan fiduciary net position as a percentage of the total pension liability	73.33 %	79.87 %	71.82 %	70.44 %	74.77 %

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available, in accordance with GASB Statement No. 68. Information was not readily available for periods prior to 2014.

METRO-NORTH COMMUTER RAILROAD COMPANY
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF MTA METRO-NORTH COMMUTER RAILROAD COMPANY'S CONTRIBUTIONS TO ALL PENSION PLANS FOR THE YEARS ENDED DECEMBER 31:
(whole dollars)

	2019	2018	2017	2016	2015	2014
MNR Cash Balance Plan						
Actuarially determined contribution	$ 8,582	$ 5,444	$ -	$ 22,721	$ -	$ 4,977
Actual employer contribution	8,582	5,444	-	22,721	14,124	-
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ (14,124)	$ 4,977
Covered payroll	$ 277,633	$ 268,488	$ 471,469	$ 846,490	$ 1,474,237	$ 2,274,338
Contributions as a % of covered payroll	3.09 %	2.03 %	- %	2.68 %	0.96 %	- %
MTA Defined Benefit Pension Plan						
Actuarially determined contribution	$ 122,824,705	$ 116,000,000	$ 114,406,753	$ 105,507,923	$ 96,982,553	$ 95,820,560
Actual employer contribution	122,824,705	116,005,446	120,514,677	99,082,552	70,500,320	122,862,733
Contribution deficiency (excess)	$ -	$ (5,446)	$ (6,107,924)	$ 6,425,371	$ 26,482,233	$ (27,042,173)
Covered payroll	$ 723,599,220	$ 698,638,597	$ 616,231,443	$ 596,128,647	$ 648,851,699	$ 525,557,448
Contributions as a % of covered payroll	16.97 %	16.60 %	19.56 %	16.62 %	10.87 %	23.38 %

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available, in accordance with GASB Statement No. 68. Information was not readily available for periods prior to 2014.

METRO-NORTH COMMUTER RAILROAD COMPANY
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
NOTES TO SCHEDULE OF MTA METRO-NORTH COMMUTER RAILROAD COMPANY'S CONTRIBUTIONS TO ALL PENSION PLANS

The following actuarial methods and assumptions were used in the January 1, 2019 funding valuation for the Metro-North Commuter Railroad Company Cash Balance Plan:

	MNR Cash Balance Plan
Valuation Dates	January 1, 2019
Measurement Date	December 31, 2018
Actuarial cost method	Unit Credit
Amortization method	One year amortization of the unfunded liability, if any.
Asset Valuation Method	Actuarial value equals market value
Inflation	2.50%
Actuarial assumptions:	
Discount rate	4.00%
Investment rate of return	4.00%, net of investment expenses
Mortality	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA
Salary increases	N/A
Cost-of-Living Adjustments	N/A

Significant methods and assumptions used in calculating the actuarially determined contributions of an employer's proportionate share in a Cost Sharing, Multiple-Employer pension plan, the MTA Defined Benefit Plan, should be 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 changes of benefit terms noted for the January 1, 2019 funding valuation.

Changes of Assumptions

There were no changes of assumptions noted for the January 1, 2019 funding valuation.

METRO-NORTH COMMUTER RAILROAD COMPANY

(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF THE MTA METRO-NORTH COMMUTER RAILROAD COMPANY'S PROPORTIONATE SHARE OF THE NET OPEB LIABILITY IN THE MTA OPEB PLAN
(In thousands, except %)

at December 31	2018	2017
Proportion of the net OPEB liability	7.92 %	7.63 %
Proportionate share of the net OPEB liability	$ 1,553,115	$ 1,571,315
Actual covered-employee payroll	$ 698,639	$ 539,257
Proportionate share of the net OPEB liability as a percentage of the Authority's covered-employee payroll	222.31 %	291.39 %
Plan fiduciary net position as a percentage of the total OPEB liability	1.86 %	1.79 %

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.

METRO-NORTH COMMUTER RAILROAD COMPANY
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF THE MTA METRO-NORTH COMMUTER RAILROAD COMPANY'S CONTRIBUTIONS TO THE MTA OPEB PLAN AND NOTES TO SCHEDULE OF CONTRIBUTIONS TO THE MTA OPEB PLAN FOR THE YEARS ENDED DECEMBER 31:
(In thousands, except %)

	2019	2018	2017
Actuarially Determined Contribution	N/A	N/A	N/A
Actual Employer Contribution [1]	$ 57,345	$ 54,762	$ 49,684
Contribution Deficiency (Excess)	N/A	N/A	N/A
Covered Payroll	723,599	698,639	539,257
Actual Contribution as a Percentage of Covered Payroll	7.92%	7.84%	9.21%

(1) Actual employer contribution includes the implicit rate of subsidy adjustment of $19,213, $18,346 and $16,674 for the years ended December 31, 2019, 2018 and 2017, respectively.

Notes to Schedule of the MTA Metro-North Commuter Railroad Companies Contribution to the OPEB Plan:

Methods and assumptions used to determine contribution rates:

Valuation date	July 1, 2017
Measurement date	December 31, 2017
Discount rate	3.44%, net of expenses
Inflation	2.50%
Actuarial cost method	Entry Age Normal
Amortization method	Level percentage of payroll
Normal cost increase factor	4.50%

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.

Staten Island Rapid Transit Operating Authority

(Component Unit of the Metropolitan Transportation Authority)

Financial Statements as of and for the Years Ended December 31, 2019 and 2018, Required Supplementary Information, and Independent Auditors' Report

STATEN ISLAND RAPID TRANSIT OPERATING AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

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INDEPENDENT AUDITORS' REPORT

To the Members of the Board of
Metropolitan Transportation Authority

Report on the Financial Statements

We have audited the accompanying statements of net position of the Staten Island Rapid Transit Operating Authority (the "Authority"), a component unit of the Metropolitan Transportation Authority ("MTA"), as of December 31, 2019 and 2018, and the related statements of revenues, expenses and changes in net position and cash flows for the years then ended, and the related notes to the financial statements, which collectively comprise the Authority's financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

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

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Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the net position of the Authority as of December 31, 2019 and 2018, and the respective changes in net position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matters

As discussed in Note 1 to the financial statements, the Authority is a component unit of the MTA. The MTA is a component unit of the State of New York. The Authority requires significant subsidies from and has material transactions with MTA, The City of New York and the State of New York. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

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

May 26, 2020

OVERVIEW OF THE FINANCIAL STATEMENTS

Introduction to the Annual Report — The following is a narrative overview and analysis of the financial activities of Staten Island Rapid Transit Operating Authority ("SIRTOA" or "Authority") for the years ended December 31, 2019 and 2018. This annual report consists of three parts: Management's Discussion and Analysis, Financial Statements and Notes to the Financial Statements and Required Supplementary Information.

Management's Discussion and Analysis — The following is a narrative overview and analysis of the financial activities of the Authority for the years ended December 31, 2019 and 2018. This management discussion and analysis ("MD&A") is intended to serve as an introduction to the Authority's financial statements. It provides an assessment of how Authority's position has improved or deteriorated and identifies the factors that, in management's view, significantly affected Authority's overall financial position. It may contain opinions, assumptions or conclusions by Authority's management that should not be considered a replacement for, and must be read in conjunction with, the financial statements described below.

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

The Statements of Revenues, Expenses and Changes in Net Position show how the Authority's net position changed during each year. They account for all of the current year's revenues and expenses, measures the financial results of the Authority over the past year and can be used to determine how the Authority has funded its costs.

The Statements of Cash Flows provide information about the Authority's cash receipts, cash payments, and net changes in cash resulting from operations, non-capital financing, capital and related financing, and investing activities.

The Notes to the Financial Statements — The notes provide information that is essential to understanding the basic financial statements, such as the Authority's accounting methods and policies, details of cash and investments, capital assets, employee benefits, lease transactions, and future commitments and contingencies of the Authority, and information about other events or developing situations that could materially affect the Authority's financial position.

Required Supplementary Information — The Required Supplementary Information provides information concerning the Authority's net pension liability and net other postemployment benefits

(OPEB) liability, employer contribution to its pension plan and OPEB, related rations, and actuarial assumptions used to calculate the net OPEB liability.

FINANCIAL REPORTING ENTITY

SIRTOA is a public benefit corporation and is a component unit of the Metropolitan Transportation Authority ("MTA") and was organized pursuant to the New York State ("State") Public Authorities Law. The Authority operates and maintains the commuter rail service in Staten Island pursuant to an interim arrangement pending renewal of its Lease and Operating Agreement ("Operating Agreement") with The City of New York ("The City"). The Operating Agreement provides that the Authority establish fares required to make operations self-sustaining (as defined in the operating agreement), and pay its operating expenses and The City pays the Authority's capital costs and operating deficits. The City has the option to terminate the Operating Agreement at any time.

The Authority requires, and will likely continue to require, substantial subsidies from various governmental sources in order to maintain its operations in the future. The Authority estimates that current fare levels and anticipated operating subsidy levels will provide sufficient revenue to meet operating expenses. Subsidies required for future years are presently being determined. If the funds made available to the Authority are not sufficient to meet its needs, the Authority must raise fares, curtail its service and operations, or defer certain other expenditures (not including maintenance) in order to continue operating within the limits of the funds.

CONDENSED FINANCIAL INFORMATION

The following sections will discuss the significant changes in the Authority's financial position for the years ended December 31, 2019 and 2018. Additionally, an examination of major economic factors and industry trends that have contributed to these changes are provided. It should be noted that for purposes of the MD&A, summaries of the financial statements and the various exhibits presented are in conformity with the Authority's financial statements, which are presented in accordance with generally accepted accounting principles in the United States of America.

Total assets, distinguishing between capital and other assets, and deferred outflows of resources:

	December 31,			Increase/(Decrease)	
	2019	2018	2017	2019–2018	2018–2017
Capital assets — net	$ 431,089,860	$ 335,949,919	$ 292,166,424	$ 95,139,941	$ 43,783,495
Other assets	57,255,758	49,596,269	63,416,354	7,659,489	(13,820,085)
Deferred outflows of resources	35,804,684	18,467,146	15,636,040	17,337,538	2,831,106
Total assets and deferred outflows of resources	$ 524,150,302	$ 404,013,334	$ 371,218,818	$ 120,136,968	$ 32,794,516

Significant changes in assets include:

December 31, 2019 versus 2018 — Net capital assets increased from December 31, 2018 to December 31, 2019 by $95,139,941 or 28.3%. This is due primarily to additions to capital assets. The net additions to capital assets of $106,769,795 or 20.1% results from the increase in construction in progress, structures, stations, signals and vehicles, partly offset by an increase in accumulated depreciation of $11,629,854 or 5.9% due to depreciation of assets. More detailed information about the Authority's capital assets is presented in Note 5 to the financial statements.

Overall, other assets increased by $7,659,489 or 15.4% compared with the prior year. This increase is primarily attributable to the increase in the NYC operating recovery subsidy receivable of $6,244,200, estimated for the operating deficit for calendar year 2019. The increase in receivable from New York

City Transit Authority of $1,958,641 related to timing of December 2019 payment of subsidies, and an increase in materials and supplies of $348,512 related to various maintenance initiatives, partially offset by a decrease in receivable from NYC Department of Education of $885,058 due to timing of payment at year-end.

Deferred outflows of resources increased by $17,337,538 or 93.9% compared with prior year. The net increase was due to an increase of $11,042,351 related OPEB based upon the most recent actuarial valuation report in accordance with GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, and an increase of $6,295,187 related to pension based upon the most recent actuarial valuation report in accordance with GASB Statements No. 68, *Accounting and Financial Reporting for Pensions,* and GASB No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date*. Refer to Notes 6 and 7 to the financial statements for more information regarding SIRTOA's pension and postemployment benefits other than pension, respectively.

December 31, 2018 versus 2017— Net capital assets increased from December 31, 2017 to December 31, 2018 by $43,783,495 or 15.0%. This is due primarily to additions to capital assets. The net additions to capital assets of $56,048,207 or 11.8% results from the increase in construction in progress, stations, track and vehicles, partly offset by an increase in accumulated depreciation of $12,264,712 or 6.7% due to depreciation of assets. More detailed information about the Authority's capital assets is presented in Note 5 to the financial statements.

Overall, other assets decreased by $13,820,085 or 21.8% compared with the prior year. This decrease is primarily attributable to the decrease in the NYC operating recovery subsidy receivable of $15,462,000 estimated for the operating deficit for calendar year 2018. The decrease is partially offset by an increase in receivable from NYC Department of Education of $881,027 due to timing of payment at year-end, and increase in other receivable related to reimbursable work performed for outside agencies of $431,729.

Deferred outflows of resources increased by $2,831,106 or 18.1% compared with prior year. The net increase was primarily due to an increase of $5,555,728 resulting from the adoption of GASB Statement No. 75, partially offset by a decrease of $2,724,622 related to pension based upon the most recent actuarial valuation report in accordance with GASB Statements No. 68 and GASB No. 71. Refer to Notes 6 and 7 to the financial statements for more information regarding SIRTOA's pension and postemployment benefits other than pension, respectively.

Total liabilities, distinguishing between long-term liabilities and current liabilities, and deferred inflows of resources:

		December 31,		Increase/(Decrease)	
	2019	2018	2017	2019–2018	2018–2017
Current liabilities	$ 51,461,451	$ 54,062,373	$ 64,980,681	$ (2,600,922)	$ (10,918,308)
Long-term liabilities	128,145,364	106,899,022	81,326,103	21,246,342	25,572,919
Total liabilities	179,606,815	160,961,395	146,306,784	18,645,420	14,654,611
Deferred inflows of resources	7,623,857	3,962,877	1,240,562	3,660,980	2,722,315
Total liabilities and deferred inflows of resources	$ 187,230,672	$ 164,924,272	$ 147,547,346	$ 22,306,400	$ 17,376,926

Significant changes in liabilities include:

December 31, 2019 versus 2018 — Liabilities increased from December 31, 2018 to December 31, 2019 by $18,645,420 or 11.6%. Current liabilities decreased by $2,600,922, due primarily to a decrease of $5,710,277 in Due to MTA for changes in the MTA investment pool. The decrease is partially offset by the increase of $1,395,292 in accrued retroactive salaries and wages primarily related to the United Transportation Union ("UTU"), the increase of $1,280,447 in Due to New York City Transit Authority related to timing of payment of various intercompany charges, and the increase of $609,142 in accrued sick and vacation pay due to higher pay rates and headcount. The increase in long-term liabilities of $21,246,342 was mainly due to the increase in net OPEB liability of $10,476,473, the increase in net pension liability of $9,275,197 and the increase in estimated liability arising from injuries to persons of $1,839,163, based upon the most current actuarial valuations.

Deferred inflows of resources increased by $3,660,980 or 92.4% compared with prior year. The increase was primarily due to an increase of $6,349,607 related to OPEB based upon the most current actuarial valuation report in accordance with GASB Statement No. 75. The increase was partially offset by a decrease of $2,688,627 related to pension based upon the most current actuarial valuation report in accordance with GASB Statements No. 68 and GASB No. 71. Refer to Notes 6 and 7 to the financial statements for more information regarding the Authority's pension and postemployment benefits other than pension, respectively.

December 31, 2018 versus 2017 — Liabilities increased from December 31, 2017 to December 31, 2018 by $14,654,611 or 10.0%. Current liabilities decreased by $10,918,308, due primarily to a decrease of $6,949,602 in Due to MTA for changes in the MTA investment pool, decrease of $5,058,742 in Due to New York City Transit Authority related to the R44 Car Fleet maintenance inter-agency charges. The decrease was partly offset by the increase of $1,128,381 in accrued retroactive salaries and wages primarily related to the United Transportation Union ("UTU"). The increase in long-term liabilities of $25,572,919 was primarily the result of the addition of $31,305,502 of net OPEB liability related to the adoption of GASB Statement No. 75, partially offset by a decrease in net pension liability of $7,748,527 based upon the most current actuarial valuation.

Deferred inflows of resources increased by $2,722,315 or 219.4% compared with prior year. The increase was primarily due to an increase of $72,145 related to OPEB resulting from the adoption of GASB Statement No. 75, and an increase of $2,650,170 related to pension based upon the most current actuarial valuation report in accordance with GASB Statements No. 68 and GASB No. 71. Refer to Notes 6 and 7 to the financial statements for more information regarding the Authority's pension and postemployment benefits other than pension, respectively.

Total net position, distinguishing among investment in capital assets, restricted amounts, and unrestricted amounts:

	December 31,			Increase/(Decrease)	
	2019	2018	2017	2019–2018	2018–2017
Investment in capital assets	$ 431,089,860	$ 335,949,919	$ 292,166,424	$ 95,139,941	$ 43,783,495
Unrestricted	(94,170,230)	(96,860,857)	(68,494,952)	2,690,627	(28,365,905)
Total net position	$ 336,919,630	$ 239,089,062	$ 223,671,472	$ 97,830,568	$ 15,417,590

Net position represents the residual interest in the Authority's assets after liabilities are deducted and consists of two sections: investment in capital assets and unrestricted. Investment in capital assets include capital assets, net of accumulated depreciation, reduced by outstanding debt, net of applicable debt service reserves. The Authority has no restricted net position. All other assets and liabilities are unrestricted.

December 31, 2019 versus 2018 — Total net position was $336,919,630 at the end of 2019, a net increase of $97,830,568 or 40.9% from the end of 2018. The net increase was due to an operating loss of $65,853,737, offset by nonoperating income of $58,245,401, and MTA capital contributions of $105,438,904.

December 31, 2018 versus 2017 — Total net position was $239,089,062 at the end of 2018, a net increase of $15,417,590 or 6.9% from the end of 2017. The net increase was due to an operating loss of $64,963,822 and decrease of $22,779,722 for the restatement of beginning net position related to the adoption of GASB Statement No. 75 (see Note 2 to the financial statements), offset by nonoperating income of $47,207,975, and MTA capital contributions of $55,953,159.

Condensed statements of revenues, expenses, and changes in net position:

	Year Ended December 31,			Increase/(Decrease)	
	2019	2018	2017	2019–2018	2018–2017
Operating revenues	$ 9,366,481	$ 9,474,797	$ 9,433,087	$ (108,316)	$ 41,710
Operating expenses	(75,220,218)	(74,438,619)	(88,616,823)	(781,599)	14,178,204
Operating loss	(65,853,737)	(64,963,822)	(79,183,736)	(889,915)	14,219,914
Nonoperating revenues (expenses):					
Grants, appropriations, and taxes	5,899,094	5,392,320	5,189,792	506,774	202,528
Subsidies	53,460,200	43,073,000	53,434,400	10,387,200	(10,361,400)
Other nonoperating revenue/expenses - net	(1,113,893)	(1,257,345)	(642,524)	143,452	(614,821)
Total net nonoperating revenues	58,245,401	47,207,975	57,981,668	11,037,426	(10,773,693)
Loss before capital contributions	(7,608,336)	(17,755,847)	(21,202,068)	10,147,511	3,446,221
Capital contributions	105,438,904	55,953,159	50,933,921	49,485,745	5,019,238
Change in net position	97,830,568	38,197,312	29,731,853	59,633,256	8,465,459
Net position — beginning of year	239,089,062	223,671,472	193,939,619	15,417,590	29,731,853
Restatement of beginning net position — adoption of GASB No. 75	-	(22,479,722)	-	22,479,722	(22,479,722)
Net position — end of year	$ 336,919,630	$ 239,389,062	$ 223,671,472	$ 97,530,568	$ 15,717,590

Revenues, by major source:

	Year Ended December 31,			Increase/(Decrease)	
	2019	2018	2017	2019–2018	2018–2017
Fare revenue	$ 6,661,698	$ 6,860,619	$ 6,893,054	$ (198,921)	$ (32,435)
Student and elderly reimbursement	1,829,059	1,790,508	1,873,885	38,551	(83,377)
Other	875,724	823,670	666,148	52,054	157,522
Total operating revenue	$ 9,366,481	$ 9,474,797	$ 9,433,087	$ (108,316)	$ 41,710

December 31, 2019 versus 2018 — Revenues from fares and student and elderly reimbursements were $8,490,757 in 2019, a decrease of 1.9% from the prior year. Ridership in 2019 was 4.300 million, a decrease of 4.9% from 2018. The decrease in revenue was due mostly to lower ridership trends. Other revenues in 2019 consist mainly of advertising revenue and rental income. The increase in other revenues of $52,054 or 6.3% from prior year was mainly related to advertising revenues.

December 31, 2018 versus 2017 — Revenues from fares and student and elderly reimbursements were $8,651,127 in 2018, a decrease of 1.3% from the prior year. Ridership in 2018 was 4.522 million, a decrease of 1.8% from 2017. The decrease in revenue was due mostly to lower ridership trends. Other revenues in 2018 consist mainly of advertising revenue and rental income. The increase in other revenues of $157,522 or 23.6% from prior year was mainly related to advertising revenues.

Operating Expenses:

(In thousands)	Year Ended December 31, 2019	2018	2017	Increase/(Decrease) 2019–2018	2018–2017
Salaries and wages	$ 28,221	$ 27,916	$ 26,277	$ 305	$ 1,639
Health and welfare	5,908	5,448	4,267	460	1,181
Pensions	7,535	5,503	6,595	2,032	(1,092)
Other post employment benefits	8,325	5,869	9,664	2,456	(3,795)
Other fringe benefits	2,699	3,271	6,331	(572)	(3,060)
Traction and propulsion power	3,947	4,668	3,991	(721)	677
Materials and supplies	2,495	3,072	2,917	(577)	155
Insurance	1,022	1,057	1,156	(35)	(99)
Public liability claims	1,486	1,204	695	282	509
Maintenance and other operating contracts	931	826	14,853	105	(14,027)
Professional service contracts	893	962	1,001	(69)	(39)
Environmental remediation	(108)	1,973	81	(2,081)	1,892
Depreciation	11,630	12,265	10,472	(635)	1,793
Other business expenses	236	405	317	(169)	88
Total operating expenses	$ 75,220	$ 74,439	$ 88,617	$ 781	$ (14,178)

December 31, 2019 versus 2018 — Operating expenses increased by $781,599 or 1.0%. The increase of $304,965 in salaries and wages was mainly due to an increase in the retroactive wage accrual for the UTU settlement. Health and welfare increased by $459,706 mostly due to an increase in rates and premiums. Pension expenses and other postemployment benefits increased by $2,032,178 and $2,456,068, respectively, based on the most current actuarial valuations. Other fringe benefits decreased by $571,637 due primarily to lower Workers' Compensation reserve requirements upon the latest actuarial valuation. Traction and propulsion power decreased by $720,924 due to lower prices and consumption. Materials and supplies expense decreased by $576,294 due primarily to timing of implementing new project initiatives. Environmental remediation expenses decreased by $2,081,831 due to lower than estimated pollution remediation work associated with the St. George Interlocking capital project. Depreciation expense decreased by $643,857 mainly due major capital project related to repair of bridges and culvert reaching full depreciated in 2019.

December 31, 2018 versus 2017 — Operating expenses decreased by $14,178,204 or 16.0%. The increase of $1,638,730 in salaries and wages was primarily due to an increase in the retroactive wage accrual for the UTU settlement. Health and welfare increased by $1,181,811 mainly due to an increase in rates and premiums. Pension expenses decreased by $1,092,388 based on the most current actuarial valuation. The decrease in other postemployment benefits of $3,794,356 was due to the adoption of GASB Statement No. 75. Other fringe benefits decreased by $3,060,372 due primarily to lower Workers' Compensation reserve requirements upon the latest actuarial valuation. Traction and propulsion power increased by $676,371 due to higher prices and consumption. The decrease of $14,027,057 in maintenance and other operating expenses was mainly related to the R44 Car Fleet maintenance project completed at the end of 2017. Environmental remediation expenses increased by $1,892,502 due to additional identification of areas of exposure requiring pollution remediation work.

Depreciation expense increased by $1,792,954 mainly due to the completion in 2018 of station rehabilitation projects and Prince's Bay new substation.

Nonoperating Revenues and Expenses:

Nonoperating revenues include various forms of State, The City and MTA subsidies and operating assistance. These subsidies are subject to annual appropriations by governmental units and periodic approval of the tax subsidies. The City and MTA subsidies are provided primarily to fund the operating deficit of SIRTOA.

Operating assistance subsidies from New York State and The City have been maintained at the same level each year.

Capital contributions from the MTA of $105,438,904 in 2019 and $55,953,159 in 2018 represent capital program funding from several sources including bonds, Federal, State and City funding.

Changes in Net Position

The change in net position represents the net total of capital contributions, operating losses and nonoperating income. Net position increased by $97,830,568 in 2019 and increased by $38,197,312 in 2018, before the restatement of the beginning net position.

Budget Highlights — Operating revenues in 2019 of $9.367 million were below budget by $0.382 million, or 3.9 %, due mostly to unfavorable ridership results depressed by project closures that caused farebox revenue to underrun the budget by $0.619 million, or 8.5%. This unfavorable farebox result was partially offset by an overrun in other operating revenue of $0.237 million, or 9.6%.

Operating expenses (excluding depreciation expense, GASB Statements No. 68 and 75 adjustments and environmental remediation) of $57.624 million were below budget by $7.574 million 11.7%. Labor expenses were lower by a net $2.586 million, or 5.3%, including an underrun in Health & Welfare/OPEB current expenses of $1.004 million, or 0.6%, due mostly to an implementation of a "market check" that resulted in lower prices/rates, primarily involving medications, thus triggering credits to SIR's projected higher expenses. Reimbursable overhead credits were favorable by $1.439 million, or over 100.0%, due largely to higher reimbursable work requirements. Other fringe benefits were less than budget by $0.361 million, or 6.7%, due primarily to lower Workers' Compensation reserve requirements, based on a current actuarial update. Overtime expenses exceeded budget by $0.277 million, or 10.2%, due to additional project work requirements and vacancy coverage.

Non-labor expenses were under budget by a net $4.987 million, or 31.2%. Maintenance contract expenses were below budget by $3.644 million, or 79.5% and Other Business Expenses were below budget by $1.019, or 81.2%, due to delay of $3.427 million of maintenance project work in progress. Claims expenses overran by $1.398 million or over 100.0%, based on the current actuarial projection.

OVERALL FINANCIAL POSITION, 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. New York City Transit (NYCT) consists of urban subway and bus systems, including paratransit services.

Preliminary NYCT system-wide utilization in 2019 increased by a net 6.5 million trips (0.3%) relative to 2018, reflecting an increase in Subway ridership of 17.7 million trips (1.1%), partly offset by a decrease in Bus ridership of 12.3 million trips (2.2%). The Subway ridership increase represented a significant turnaround, following three consecutive years of declining ridership, and despite a fare increase in March 2019. Leadership attributes the increase to the major improvement in subway service quality, notably, significantly improved on-time performance and a reduction in service disruptions following completion of major Subway Action Plan initiatives by year-end 2018. The decline in bus ridership is consistent with a trend that began in 2009 and has been observed nationally, mainly due to trips shifting to for-hire vehicles and increases in fare evasion. 2019 Paratransit ridership increased by 1.1 million trips (10.6%) from 2018, reflecting continued growth in E-Hail and enhanced broker services.

Seasonally adjusted non-agricultural employment in New York City for the fourth quarter was higher in 2019 than in 2018 by 79.5 thousand jobs (1.7%). On a quarter-to-quarter basis, New York City employment increased 32.7 thousand jobs, increasing for thirty-seventh consecutive quarter—the last decline occurred in the third quarter of 2010—and was higher than at any time since 1950, when non-agricultural employment levels for New York City were first recorded by the Bureau of Labor Statistics.

National economic growth, as measured by Real Gross Domestic Product (RGDP), expanded at an annualized rate of 2.1% in the fourth quarter of 2019, according to the most recent advance estimate released by the Bureau of Economic Analysis (BEA). The increase in RGDP reflected increases in consumer spending, government spending, exports, and housing investment, which were partially offset by decreases in inventory investment and business investment. Imports, a subtraction in the calculation of GDP, decreased. The increase in consumer spending reflected increases in goods (led by motor vehicles and parts) and services (led by health care). The increase in government spending reflected increases at the federal, as well as state and local, government levels. The decline in inventory investment reflected a decrease in retail trade inventories (led by motor vehicle dealers), while the decline in business investment reflected a decrease in equipment (led by industrial equipment) and structures (led by mining exploration, shafts, and wells).In the third quarter, the annualized RGDP rate was also 2.1 percent.

The New York City metropolitan area's price inflation, as measured by the Consumer Price Index for All Urban Consumers (CPI-U), was lower than the national average in the fourth quarter of 2019, with the metropolitan area index increasing 1.84% while the national index increased 2.03%, when compared with the fourth quarter of 2018.Decreases in both the regional and national price of energy products (2.52% for the region, and 0.56% nationally) contributed to the low inflation rates; in the metropolitan area, the CPI-U exclusive of energy products increased by 2.15%, while nationally, inflation exclusive of energy products increased 2.25%. However, the spot price for New York Harbor conventional gasoline increased by 1.2%, from an average price of $1.70 per gallon to an average price of $1.72 per gallon between the fourth quarters of 2018 and 2019.

The Federal Open Market Committee (FOMC) lowered its target for the Federal Funds rate during the fourth quarter of 2019, by a quarter point on October 31, 2019 to the target range of 1.50% to 1.75%. Job gains have been solid, on average, in recent months, and the unemployment rate has remained low. Although household spending has been rising at a strong pace, business fixed investment and exports remain weak. On a twelve-month basis, overall inflation and inflation for items other than food and energy are running below 2 percent, and market-based measures of inflation compensation remain low and survey-based measures of longer-term inflation expectations are little changed. The target rate reduction supports the FOMC's view that sustained expansion of economic activity, strong labor market conditions and inflation near the FOMC's 2 percent objective remain the most likely outcomes, but uncertainties remain. The FOMC indicated that the timing and size of future adjustments to the target range would consider realized and expected economic conditions relative to its maximum employment objective and its 2 percent inflation objective, including measures of labor market conditions, indicators of inflation and inflation expectations, and financial and international developments.

Results of Operations and Overall Financial Position — Total revenue from fares and student and elderly reimbursements was $8,490,757 in 2019, a decrease of 1.9% from 2018. Total ridership was 4.3 million, a decrease of 4.9% from 2018. Total non-reimbursable expenses, including depreciation, pension costs, other post-employment benefits and environmental remediation, were $75,220,218 in 2019, an increase of 1.0%.

Going forward, the stability of the Authority's financial position is subject to certain risks, requiring the efficient management of costs, including the establishment of new cost reduction programs, in order to counteract any adverse impacts to revenue streams or cost increases.

SIGNIFICANT CAPITAL ASSET ACTIVITY

Capital Program — The MTA has ongoing programs on behalf of its affiliated agencies, 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 Transit Authority's portion of the current MTA Capital Program for 2015–2019, which includes SIRTOA, totals $16.7 billion. As of December 31, 2019, $13.0 billion has been encumbered under the five-year plan, of which approximately $6.5 billion has been expended. Funding for the Capital Program comes from new money bonds, federal grants, bonds supported by the payroll mobility tax applied within the MTA regional district, The City capital funding and other sources.

2019 SIRTOA projects incorporated into the overall program commitment included flood resiliency project at the St. George Terminal and Yard in Staten Island ($47.3 million). Both the station and the yard were flooded by Superstorm Sandy; future potential flooding is mitigated by a perimeter wall around the terminal, deployable barrier protection for terminal access points and the rail tunnel, improvements to the drainage and pumping systems, installation of watertight manholes and a backflow system. This investment will protect the St. George Terminal and Yard against future major storms. In addition, a Staten Island Railroad (SIR) Component Program was awarded to repair/replace components at six stations at the following locations: St. George, Clifton, Eltingville, Annadale, Huguenot and Tottenville ($17 million). Upcoming capital projects in 2020 include ADA/component work at three SIR stations: Clifton, New Dorp, and Huguenot ($128 million) as well as UHF (Ultra high frequency) T-Band Radio System Replacement ($21 million).

In 2019, two SIR projects were completed including Enhanced Stations work at Richmond Valley that brings the station into state of good repair and provide customer enhancements ($6 million), and Rehabilitation of Amboy Road Bridge ($7 million). Capital work expected to be completed in 2020 include the construction of Tottenville power substation to improve reliability of train service by furnishing adequate electrical power along the right of way ($25 million), and SIR Mainline Track Rehabilitation and Clifton Yard Track and Switch Reconfiguration ($63 million)

CURRENTLY KNOWN FACTS, DECISIONS, OR CONDITIONS

Going forward, the Authority's February 2020 Financial Plan includes certain risks such as:

- Biennial fare increases approximating inflation
- Achieving efficiencies/consolidations
- 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 initial impact of social distancing and Governor Cuomo's PAUSE Executive Order 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 have occurred at an accelerating pace. The steep fall in both ridership and vehicle volume reflects the initial impact of social distancing and subsequent State governmental orders limiting non-essential activities caused by the COVID-19 pandemic. There remains a high risk for further reductions in ridership and traffic.
  - While we cannot estimate the duration of the pandemic and the reduced use of MTA services, if the current levels are sustained for six months, and then followed by a gradual six-month return to pre-pandemic ridership and traffic levels, the full 2020 financial impact of the COVID-19 crisis to the MTA is projected to be between $7.0 and $8.5 billion.
  - A combination of the pandemic crisis and delays in Washington could delay the January 2021 launch of congestion pricing.

  Refer to Note 11 to the financial statements for more information regarding the assessed impact from COVID-19 pandemic on the Authority's finances and operations.

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STATEN ISLAND RAPID TRANSIT OPERATING AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF NET POSITION
DECEMBER 31, 2019 AND 2018

ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	2019	2018
CURRENT ASSETS:		
Cash (Note 3)	$ 152,677	$ 92,190
Receivables:		
New York City Department of Education	871,780	1,756,838
NYC operating recovery	50,205,600	43,961,400
Due from New York City Transit Authority (Note 10)	1,958,641	-
Due from MTA (Note 10)	28,178	39,039
MTA capital program funds receivable (Note 10)	559,368	693,645
Other	1,015,166	1,078,183
Less allowance for doubtful accounts	(3,308)	(28,676)
Net receivables	54,635,425	47,500,429
Materials and supplies — at average cost — net	1,927,281	1,578,769
Prepaid expense and other current assets	540,375	424,881
Total current assets	57,255,758	49,596,269
NONCURRENT ASSETS:		
Capital assets (Note 5):		
Construction work-in progress	173,689,056	79,504,845
Other capital assets, net of accumulated depreciation	257,400,804	256,445,074
Total capital assets, net of accumulated depreciation	431,089,860	335,949,919
Total assets	488,345,618	385,546,188
DEFERRED OUTFLOWS OF RESOURCES:		
Related to pension (Note 6)	19,206,605	12,911,418
Related to OPEB (Note 7)	16,598,079	5,555,728
Total deferred outflows of resources	35,804,684	18,467,146
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	$ 524,150,302	$ 404,013,334

See notes to financial statements.

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STATEN ISLAND RAPID TRANSIT OPERATING AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF NET POSITION
DECEMBER 31, 2019 AND 2018

LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	2019	2018
CURRENT LIABILITIES:		
Accounts payable	$ 921,878	$ 1,141,584
Accrued retroactive salaries and wages	3,114,708	1,719,416
Accrued sick and vacation pay	4,687,693	4,078,551
Accrued payroll taxes and related liabilities	766,835	680,940
Due to New York City Transit Authority (Note 10)	1,539,872	259,425
Due to MTA (Note 4 and 10)	39,008,787	44,719,064
Estimated liability arising from injuries to persons (Note 8)	1,095,293	1,050,886
Pollution remediation projects (Note 9)	326,385	412,507
Total current liabilities	51,461,451	54,062,373
NONCURRENT LIABILITIES:		
Net pension liability (Note 6)	29,304,304	20,029,107
Net OPEB liability (Note 7)	79,905,716	69,429,243
Estimated liability arising from injuries to persons (Note 8)	17,469,003	15,629,840
Pollution remediation projects (Note 9)	1,466,341	1,810,832
Total noncurrent liabilities	128,145,364	106,899,022
Total liabilities	179,606,815	160,961,395
DEFERRED INFLOWS OF RESOURCES:		
Related to pension (Note 6)	1,202,105	3,890,732
Related to OPEB (Note 7)	6,421,752	72,145
Total deferred inflows of resources	7,623,857	3,962,877
NET POSITION:		
Investment in capital assets	431,089,860	335,949,919
Unrestricted	(94,170,230)	(96,860,857)
Total net position	336,919,630	239,089,062
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	$ 524,150,302	$ 404,013,334

See notes to financial statements.

(Concluded)

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STATEN ISLAND RAPID TRANSIT OPERATING AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
OPERATING REVENUE:		
Fare revenue	$ 6,661,698	$ 6,860,619
Student fare reimbursement	1,795,387	1,756,836
Elderly fare reimbursement	33,672	33,672
Other	875,724	823,670
Total operating revenues	9,366,481	9,474,797
OPERATING EXPENSES:		
Salaries and wages	28,220,525	27,915,560
Health and welfare	5,908,028	5,448,322
Pensions	7,534,891	5,502,713
Other post employment benefits	8,325,384	5,869,316
Other fringe benefits	2,699,232	3,270,869
Traction and propulsion power	3,946,733	4,667,657
Materials and supplies	2,495,470	3,071,764
Insurance	1,021,899	1,057,551
Public liability claims (Note 2)	1,486,257	1,203,742
Maintenance and other operating expenses	930,956	826,431
Professional service contracts	893,408	961,835
Environmental remediation	(108,551)	1,973,280
Depreciation	11,629,855	12,264,712
Other business expenses	236,131	404,867
Total operating expenses	75,220,218	74,438,619
OPERATING LOSS	(65,853,737)	(64,963,822)
NONOPERATING REVENUE — Operating assistance subsidies:		
New York State tax supported subsidy	4,693,186	4,218,148
New York State — 18B Assistance	602,954	587,086
New York City — 18B Assistance	602,954	587,086
NYC operating recovery subsidy (Note 2)	53,460,200	43,073,000
Total nonoperating revenues	59,359,294	48,465,320
Other nonoperating (expenses) income — net	(1,113,893)	(1,257,345)
Total nonoperating income	58,245,401	47,207,975
LOSS BEFORE CAPITAL CONTRIBUTIONS	(7,608,336)	(17,755,847)
CAPITAL CONTRIBUTIONS:		
MTA contributions for capital projects	105,438,904	55,953,159
INCREASE IN NET POSITION	97,830,568	38,197,312
NET POSITION — Beginning of year	239,089,062	223,671,472
Restatement of beginning net position — adoption of GASB No. 75	-	(22,779,722)
NET POSITION — End of year	$ 336,919,630	$ 239,089,062

See notes to financial statements.

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STATEN ISLAND RAPID TRANSIT OPERATING AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES:		
Passenger receipts	$ 9,343,592	$ 7,790,556
Rent and other receipts	875,724	823,670
Payroll and related fringe benefits	(44,446,185)	(46,758,302)
Other operating expenses	(10,434,791)	(15,026,771)
Net cash used in operating activities	(44,661,660)	(53,170,847)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Subsidies received	52,842,032	62,572,077
Net cash provided by noncapital financing activities	52,842,032	62,572,077
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Capital project costs incurred for capital program	(4,697,230)	(2,781,501)
Interest paid	(1,121,757)	(1,270,210)
Payments on MTA Transportation bonds issued to fund capital assets	(688,312)	(1,038,073)
Reimbursement of capital project costs from MTA	4,159,113	2,693,420
Net cash used in capital and related financing activities	(2,348,186)	(2,396,364)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Change in MTA investment pool	(5,776,005)	(7,002,608)
Interest and dividends on investment	4,306	5,194
Net cash used in investing activities	(5,771,699)	(6,997,414)
NET INCREASE IN CASH	60,487	7,452
CASH — Beginning of year	92,190	84,738
CASH — End of year	$ 152,677	$ 92,190

NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES —
MTA contributed capital assets to SIRTOA of $105,438,904 and $55,953,159 in 2019 and 2018, respectively.

See notes to financial statements. (Continued)

STATEN ISLAND RAPID TRANSIT OPERATING AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
RECONCILIATION OF CASH FLOWS FROM OPERATING ACTIVITIES:		
Operating loss before non-operating revenues and contributions	$ (65,853,737)	$ (64,963,822)
Adjustments to reconcile operating loss to net cash used in operating activities — depreciation	11,629,855	12,264,712
Changes in operating assets and liabilities:		
Decrease (increase) in receivable from New York City Department of Education	885,058	(881,027)
Decrease in receivable from MTA	10,861	24,370
Increase in due from New York City Transit Authority	(1,685,579)	-
Decrease (increase) in other receivables	37,649	(560,880)
Decrease in materials and supplies inventory	(348,512)	(222,558)
(Increase) decrease in other assets	(115,494)	30,937
(Increase) decrease in deferred outflows of resources related to pension	(6,295,187)	2,724,622
Increase in deferred outflows of resources related to OPEB	(11,042,351)	(5,555,728)
Decrease in accounts payable	(219,706)	(11,916)
Increase in accrued retroactive salaries and wages	1,395,292	1,128,381
Increase (decrease) in accrued sick & vacation	609,142	(29,645)
Increase in payroll taxes and related liabilities	85,895	87,733
Increase (decrease) in net pension liability	9,275,197	(7,748,527)
Increase in due to MTA	99,100	25,254
Increase (decrease) in due to New York City Transit Authority	1,280,447	(3,703,499)
Increase in net OPEB liability	10,476,473	8,525,780
Increase in estimated liabilities arising from personal injuries	1,883,570	999,372
(Decrease) increase in liability for environmental pollution remediation	(430,613)	1,973,279
(Decrease) increase in deferred inflows of resources related to pension	(2,688,627)	2,650,170
Increase in deferred inflows of resources related to OPEB	6,349,607	72,145
NET CASH USED IN OPERATING ACTIVITIES	$ (44,661,660)	$ (53,170,847)

See notes to financial statements. (Concluded)

STATEN ISLAND RAPID TRANSIT OPERATING AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

NOTES TO FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018

1. BASIS OF PRESENTATION

Reporting Entity — The Staten Island Rapid Transit Operating Authority ("SIRTOA" or "Authority") is a public benefit corporation and a component unit of the Metropolitan Transportation Authority ("MTA") organized pursuant to the New York State ("State") Public Authorities Law. SIRTOA is part of the financial reporting group of the MTA and is included in the MTA consolidated financial statements. The MTA is a component unit of the State and is included in the State of New York's Comprehensive Annual Financial Report as a public benefit corporation.

SIRTOA is operationally and legally independent of the MTA. SIRTOA enjoy certain rights typically associated with separate legal status. However, SIRTOA is included in the MTA's consolidated financial statements as a blended component unit because of the MTA's financial accountability and SIRTOA is under the direction of the MTA Board (a reference to "MTA Board" means the board of MTA and/or the boards of the Authority and other MTA component units 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 SIRTOA in its consolidated financial statements.

SIRTOA operates and maintains the commuter rail service in Staten Island pursuant to an arrangement pending renewal of its Lease and Operating Agreement (Operating Agreement) with New York City ("The City"). The Operating Agreement provides that SIRTOA establishes fares required to make operations self-sustaining (as defined in the Operating Agreement), and pays its operating expenses and The City pays SIRTOA's capital costs and operating deficits. The City has the option to terminate the Operating Agreement at any time.

SIRTOA requires and will continue to require substantial subsidies from various governmental sources in order to maintain its operations in the future. SIRTOA estimates that current fare levels and anticipated operating subsidy levels will provide sufficient revenue to meet operating expenses. Subsidies required for future years are presently being determined. If the funds made available to SIRTOA are not sufficient to meet its needs, SIRTOA must raise fares, curtail its services and operations or defer certain other expenditures (but not maintenance) in order to continue operating within the limits of the funds.

2. SUMMARY OF 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.

SIRTOA 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 — SIRTOA adopted the following GASB Statements for the year ended December 31, 2019:

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

GASB Statement No. 84, *Fiduciary Activities*, improves guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The requirements of GASB Statement No. 84 are effective for reporting periods beginning after December 15, 2018. The adoption of this had no material impact on SIRTOA's financial statements.

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

GASB Statement No. 90, "*Majority Equity Interest- an Amendment of GASB Statements No. 14 and No. 61"*, improves consistency in the measurement and comparability of the financial statement presentation of majority equity interests in legally separate organizations and improves the relevance of financial statement information for certain component units. The Statement defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. The Statement also establishes that ownership of a majority equity interest in a legally separate organization results in the government being financially accountable for the legally separate organization and, therefore, the government should report that organization as a component unit. In addition, the Statement also requires that a component unit in which a government has a 100 percent equity interest account for its assets, deferred outflows of resources, liabilities and deferred inflows of resources at acquisition value. GASB Statement No. 90 is effective for reporting periods beginning after December 15, 2018. The adoption of this Statement did not have a material impact to SIRTOA's financial statements.

GASB Statement No. 95, "*Postponement of the Effective Dates of Certain Authoritative Guidance"*, provides temporary relief to government and other stakeholders in light of the COVID-19 pandemic. This objective is accomplished by postponing the effective dates of certain accounting and financial reporting provisions in Statements and Implementation Guides that first became effective or are scheduled to become effective for periods beginning after June 15, 2018 and later. GASB Statement No. 95 is effective immediately. The adoption of this Statement did not have a material impact to SIRTOA's financial statements. However, SIRTOA did update the required year of adoption for GASB Statements No. 87, 89, 91, 92 and 93. Refer to Accounting Standards Issued but Not Yet Adopted for further details.

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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 SIRTOA upon implementation. Management has not yet evaluated the effect of implementation of these standards.

GASB Statement No.	GASB Accounting Standard	SIRTOA Required Year of Adoption
87	*Leases*	2022
89	*Accounting for Interest Cost Incurred Before the End of a Construction Period*	2021
91	*Conduit Debt Obligations*	2022
92	*Omnibus 2020*	2022
93	*Replacement of Interbank Offered Rates*	2022
94	*Public-Private and Public-Public Partnerships and Availability Payment Arrangements*	2023

Capital Assets — SIRTOA is part of the MTA five-year Capital Program ("Capital Program"). The costs of capital assets acquired and transferred to SIRTOA without payment obligation under the MTA Capital Program is reflected in the accompanying financial statements under the captions "Capital Assets" and "Investment in Capital Assets."

The cost of SIRTOA's City funded in-house track rehabilitation is reflected in the accompanying financial statements under the captions "Capital Assets" and "Investment in Capital Assets."

Capital assets are carried at cost and are depreciated on a straight-line basis over their estimated useful lives of 25 years for shops and yards, stations and signals. Track is depreciated over 30 years while structures and equipment and others are depreciated over 10 years. Vehicles are depreciated over 5 and 10 years, depending on their nature.

Net Position — SIRTOA follows the "business type" activity requirements of GASB Statement No. 34, which requires that resources be classified for accounting and reporting purposes into the following two net position categories:

- *Investment in Capital Assets* — Capital assets, net of accumulated depreciation and outstanding principal balances of debt attributable to the acquisition, construction or improvement of those assets.

- *Unrestricted* — Net position that is not subject to externally imposed stipulations. Unrestricted net position may be designated for specific purposes by actions of management or the Board of Directors or may be otherwise limited by contractual agreements with outside parties.

Subsidies — SIRTOA receives operating assistance subsidies under various New York State (the "State") and City programs and from the proceeds of certain taxes instituted by the State for the benefit of the New York City Transit Authority and SIRTOA. These subsidies are subject to annual appropriations by the governmental units and periodic approval of the tax subsidies.

SIRTOA's policy is to record one year's operating assistance subsidy in each fiscal year. Such subsidy is recorded as revenue as the funds are made available. The New York City Transit Authority administers all tax-supported subsidies for SIRTOA on a formula amount determined by passenger ridership and vehicle revenue miles. The tax-based subsidies are recognized as revenue based on the amount of tax collections reported by the State, which are allocable to SIRTOA pursuant to this formula. In 2019 and 2018, the MTA provided SIRTOA with budgeted amounts of operating assistance subsidies as required. The MTA did not make the funds available to SIRTOA before they were required to finance its operations.

Pursuant to a letter agreement between The City and MTA, The City has agreed to pay SIRTOA's annual operating deficit, the difference between the actual operating costs and all revenues, including reimbursements, as an annual subsidy to SIRTOA. At December 31, 2019, SIRTOA recorded a NYC operating recovery receivable and subsidy revenue of $50,205,600 and $53,460,200, respectively for the calendar year 2019. In 2019, SIRTOA received $47,216,000 from The City for calendar year 2018 operating deficit. At December 31, 2018, SIRTOA recorded a NYC operating recovery receivable and subsidy revenue of $43,961,400 and $43,073,000, respectively for the calendar year 2018. In 2018, SIRTOA received $58,535,000 from The City for calendar year 2017 operating deficit.

In addition to operating and tax supported subsidies, SIRTOA receives expense reimbursement subsidies from The City and the MTA for the costs associated with various capital programs.

MTA Investment Pool — The MTA, on behalf of SIRTOA, invests funds which are not immediately required for SIRTOA's operations in securities permitted by the State Public Authorities Law, including repurchase agreements collateralized by U.S. Treasury securities, U.S. Treasury notes and U.S. Treasury zero-coupon bonds. All investments are held by the MTA's agent in custody accounts in the name of the MTA. The Authority categorizes its fair value measurement within the fair value hierarchy established by U.S. GAAP. The hierarchy is based on the valuation inputs used to measure fair value of the assets. Level 1 inputs are quoted prices in an active market for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs. SIRTOA's investment in the MTA Investment Pool is valued based on other observable inputs (Level 2 inputs).

Receivables — Receivables are recorded as amounts due to SIRTOA, reduced by an allowance for doubtful accounts, to report the receivables at net realizable value.

Pollution Remediation Projects — Pollution remediation costs are being expensed in accordance with the provisions of GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations* (see Note 9). 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: SIRTOA is in violation of a pollution prevention-related permit or license; an imminent threat to public health due to pollution exists; SIRTOA is named by a regulator as a responsible or potentially responsible party to participate in remediation; SIRTOA voluntarily commences or legally obligates itself to commence remediation efforts; or SIRTOA is named or there is evidence to indicate that it will be named in a lawsuit that compels participation in remediation activities.

Public Liability Claims — SIRTOA establishes its liability to employees and to the general public on the basis of independent actuarial estimates of future liability.

Materials and Supplies — Materials and supplies consist of new maintenance parts and supplies, and are recorded at weighted average cost, net of a reserve for obsolescence at December 31, 2019 and 2018 of $514,595 and $409,946, respectively.

Revenue Recognition — Revenues from the sales of farecards are recognized as income as the farecards are used and are reported as operating income.

Operating Expenses — Operating expenses are recognized in the accounting period in which the liability is incurred. All expenses related to operating SIRTOA (e.g., salaries, insurance, depreciation, etc.) are reported as operating expenses.

Pension Plans — Effective for the year-ended December 31, 2015, SIRTOA adopted the standards of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions* and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date*, for its pension plan.

SIRTOA recognizes a proportionate share of the net pension liability for the qualified cost-sharing, multiple-employer pension plan in which it participates, which represents the excess of the total pension liability over the fiduciary net position of the pension plan, as of the plan's measurement date. 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 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 period in which the difference occurred.

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

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

SIRTOA recognizes a proportionate share of the net OPEB liability for MTA's cost-sharing multiple-employer OPEB Plan, 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.

Use of Management's Estimates — The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements. In addition, they affect the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates and assumptions.

3. CASH

Bank balances are insured up to $250,000 in the aggregate by the Federal Deposit Insurance Corporation ("FDIC") for each bank in which funds are deposited. The difference between the carrying amount and the bank balance for the years ended December 31, 2019 and 2018, is due to deposits in transit offset by any outstanding checks.

At December 31, 2019 and 2018, cash consisted of:

	2019		2018	
	Carrying Amount	Bank Balance	Carrying Amount	Bank Balance
Insured deposits ("FDIC")	$ 152,677	$ 158,620	$ 92,190	$ 94,587
Uninsured deposits	-	-	-	-
	$ 152,677	$ 158,620	$ 92,190	$ 94,587

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

4. MTA INVESTMENT POOL

The MTA, on behalf of SIRTOA, invests funds which are not immediately required for SIRTOA's operations, in securities permitted by the State Public Authorities Law, including repurchase agreements collateralized by U.S. Treasury, U.S. Treasury notes, and U.S. Treasury zero coupon bonds. All investments are held by the MTA's agent, in custody accounts, in the name of the MTA. SIRTOA records its position in the Pool based upon a net asset value derived on assets invested in the Pool plus all realized income and losses earned. SIRTOA's earnings from short-term investments were $7,864 and $11,679 for the years ended December 31, 2019 and 2018, respectively. As of December 31, 2019 and 2018, SIRTOA had a negative investment pool balance of $38,385,075 and $44,161,080, respectively, as funds were used for working capital purposes to offset the timing of the NYC operating recovery subsidy. The $38,385,075 and $44,161,080 were included in the Due to MTA on the Statements of Net Position.

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5. CAPITAL ASSETS

Capital assets at December 31 consisted of the following:

	December 2018	Additions / Reclassifications	Deletions / Reclassifications	December 2019
Capital assets not being depreciated:				
Construction work-in-progress	$ 79,504,845	$ 106,769,795	$ (12,585,584)	$ 173,689,056
Total capital assets not being depreciated	79,504,845	106,769,795	(12,585,584)	173,689,056
Capital assets being depreciated:				
Track	35,254,473	-	-	35,254,473
Structures	71,715,489	7,236,738	-	78,952,227
Cars	28,772,654	-	-	28,772,654
Shops and yard	23,531,629	-	-	23,531,629
Stations	266,583,527	4,732,907	-	271,316,434
Signals	9,623,688	1,847	-	9,625,535
Vehicles	2,900,356	614,092	-	3,514,448
Equipment and other	14,312,172	-	-	14,312,172
Total capital asset being depreciated	452,693,988	12,585,584	-	465,279,572
Less accumulated depreciation:				
Track	(17,719,611)	(1,175,832)	-	(18,895,443)
Structures	(42,770,201)	(2,098,584)	-	(44,868,785)
Cars	(23,789,535)	(385,524)	-	(24,175,059)
Shops and yard	(19,455,980)	(469,225)	-	(19,925,205)
Stations	(71,615,334)	(6,841,122)	-	(78,456,456)
Signals	(6,447,960)	(177,410)	-	(6,625,370)
Vehicles	(1,921,791)	(403,175)	-	(2,324,966)
Equipment and other	(12,528,502)	(78,982)	-	(12,607,484)
Total accumulated depreciation	(196,248,914)	(11,629,854)	-	(207,878,768)
Total capital assets being depreciated — net	256,445,074	955,730	-	257,400,804
Capital assets — net	$ 335,949,919	$ 107,725,525	$ (12,585,584)	$ 431,089,860

	December 2017	Additions / Reclassifications	Deletions / Reclassifications	December 2018
Capital assets not being depreciated:				
Construction work-in-progress	$ 35,296,465	$ 56,048,207	$ (11,839,827)	$ 79,504,845
Total capital assets not being depreciated	35,296,465	56,048,207	(11,839,827)	79,504,845
Capital assets being depreciated:				
Track	35,254,473	-	-	35,254,473
Structures	71,695,488	20,001	-	71,715,489
Cars	28,772,654	-	-	28,772,654
Shops and yard	23,531,629	-	-	23,531,629
Stations	255,070,805	11,512,722	-	266,583,527
Signals	9,623,688	-	-	9,623,688
Vehicles	2,593,252	307,104	-	2,900,356
Equipment and other	14,312,172	-	-	14,312,172
Total capital asset being depreciated	440,854,161	11,839,827	-	452,693,988
Less accumulated depreciation:				
Track	(16,543,779)	(1,175,832)	-	(17,719,611)
Structures	(40,024,908)	(2,745,293)	-	(42,770,201)
Cars	(23,404,010)	(385,525)	-	(23,789,535)
Shops and yard	(18,986,755)	(469,225)	-	(19,455,980)
Stations	(64,758,639)	(6,856,695)	-	(71,615,334)
Signals	(6,269,575)	(178,385)	-	(6,447,960)
Vehicles	(1,547,016)	(374,775)	-	(1,921,791)
Equipment and other	(12,449,520)	(78,982)	-	(12,528,502)
Total accumulated depreciation	(183,984,202)	(12,264,712)	-	(196,248,914)
Total capital assets being depreciated — net	256,869,959	(424,885)	-	256,445,074
Capital assets — net	$ 292,166,424	$ 55,623,322	$ (11,839,827)	$ 335,949,919

6. EMPLOYEE BENEFITS

Pension Plan — SIRTOA participates in a defined benefit pension plan for their employees, the Metropolitan Transportation Authority Defined Benefit Plan (the "MTA Defined Benefit Plan"). A brief description of the pension plan follows:

Plan Description — The MTA Defined Benefit Pension Plan (the "MTA Plan" or the "Plan") is a cost sharing, multiple-employer pension plan. The Plan covers certain MTA Long Island Rail Road nonrepresented employees hired after December 31, 1987, MTA Metro-North Railroad non-represented employees, certain employees of the former MTA Long Island Bus hired prior to January 23, 1983, MTA Police, MTA Long Island Rail Road represented employees hired after December 31, 1987, certain MTA Metro-North Railroad represented employees, MTA Staten Island Railway represented and nonrepresented employees and certain employees of the MTA Bus Company ("MTA Bus"). MTA Long Island Rail Road, MTA Metro-North Railroad, MTA, 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 which is comprised of the Chairman of the MTA, MTA Chief Financial Officer, MTA Director of Labor Relations and the agency head of each participating Employer. The MTA Plan may be amended by action of the MTA Board.

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

Benefits Provided:

Pension Benefits — Retirement benefits are paid from the Plan to covered MTA Staten Island Railway 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 an early retirement allowance upon termination if the participant has attained age fifty-five and completed at least ten years of credited service. Terminated participants with five or more years of credited service who are eligible for a deferred vested benefit are not eligible to receive a service retirement allowance or early retirement allowance. Upon retirement, the member's vested retirement benefit from the Plan will be calculated on the Final Average Salary ("FAS"), defined as the highest average compensation over any three consecutive years.

Death 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 ten years of credited service for covered MTA Staten Island Railway employees. The disability retirement allowance for represented covered MTA Staten Island Railway employees is calculated based on the participant's credited service and FAS but not less than ⅓ of FAS. Death benefits are paid to the participant's beneficiary in the event of the death of a covered MTA Staten Island Railway employee after completion of one year of credited service. Moreover, an accidental death benefit is payable for the death of a participant who is a covered MTA Staten Island Railway employee and dies as the result of an on-the-job accidental injury.

Death benefits are paid to the participant's beneficiary in the event of the death of a covered 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 sixty-one. 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.

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, retirement benefits establishment and changes are presented to the MTA Board and must be accepted and approved by the MTA Board.

Contributions and Funding Policy — SIRTOA's 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 Plan are recognized in the period in which the contributions are due. The following summarizes the types of employee contributions made to the Plan. MTA Staten Island Railway employees contribute 3% of salary except for represented employees hired on or after June 1, 2010 who contribute 4%. For the MTA Staten Island Railway employees, contributions are not required after the completion of ten years of credited service.

The actual contributions for the year ended December 31, 2019 and 2018 were $7,243,508 and $7,876,448, respectively.

Net Pension Liability — SIRTOA's net pension liability reported at December 31, 2019 was measured as of December 31, 2018. The total pension liability for the Plan was determined as of the actuarial valuation date of January 1, 2018, and rolled forward to the measurement date of December 31, 2018. SIRTOA's net pension liability reported at December 31, 2018 was measured as of December 31, 2017. The total pension liability for the Plan was determined as of the actuarial valuation date of January 1, 2017, and rolled forward to the measurement date of December 31, 2017. The fiduciary net position and additions to and deductions from the fiduciary net position have been determined on the same basis as reported by the Plan. For this purpose, benefits and refunds are recognized when due and payable in accordance with the terms of the Plan; and investments are reported at fair value.

Actuarial Assumptions — The total pension liabilities in actuarial valuation dates were determined using the following actuarial assumptions:

Valuation Date:	January 1. 2018	January 1. 2017
Investment Rate of Return	7.00% per annum, net of investment expenses	7.00% per annum, net of investment expenses
Salary Increases	Varies by years of employment, and employee group	Varies by years of employment, and employee group
Inflation	2.5%	2.5%
Cost -of Living Adjustments	55% of inflation assumption or 1.375%, if applicable.	55% of inflation assumption or 1.375%, if applicable.

Mortality — The actuarial assumptions used in the January 1, 2018 and January 1, 2017 valuations for the MTA plans are based on the results of an actuarial experience study for the period from January 1, 2006 through December 31, 2011, with certain assumptions modified subsequently. The postretirement mortality assumption is based on an experience analysis 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: RP-2014 Disabled Annuitant mortality table for males and females.

Expected Rate of Return on Investments — The long-term expected rate of return on pension plan investments was 7.0% for the Plan. The rate was determined using a building-block method in which best-estimate ranges of expected future real rates of return ("RROR") (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.

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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 table:

Asset Class	Target Asset Allocation	Long-Term Expected Real Rate of Return
US Core Fixed Income	9.00%	2.03%
US Long Bonds	1.00%	2.44%
US Bank / Leveraged Laons	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%	
Assumed Inflation — Mean		2.50%
Assumed Inflation — Standard Deviation		1.65%
Portfolio Arithmetic Mean Return as per Actuary		7.19%
Portfolio Standard Deviation		10.87%
Long Term Expected Rate of Return selected by MTA		7.00%

Discount Rate — As of December 31, 2018 and December 31, 2017, the discount rate used to measure the total pension liability of the MTA Plan was 7.0%. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the rates applicable and that the employer contributions will be made at the rate determined by the Plan's actuary. Based on those assumptions, the 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 projected benefit payments to determine the total pension liability.

SIRTOA's Proportion of Net Pension Liability — The following table presents SIRTOA's proportionate share of the net pension liability of the MTA Plan at the measurement date of December 31, 2018 and 2017 and the proportion percentage of the net pension liability of the Plan allocated to SIRTOA:

	December 31, 2018	December 31, 2017
SIRTOA's proportion of the net pension liability	2.09%	2.12%
SIRTOA's proportionate share of the net pension liability	$ 29,304,304	$ 20,029,107

SIRTOA's proportion of the respective Plan's net pension liability was based on actual required contributions of the participating employer for the fiscal year-end.

Sensitivity of the Proportionate Share of the Net Pension Liability to Changes in the Discount Rate — The following table presents SIRTOA's proportionate share of the net pension liability calculated using the discount rate of 7.0% for the MTA Plan, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.0%) or 1-percentage point higher (8.0%) than the actual discount rate used for each measurement date:

December 31, 2018			December 31, 2017		
1% Decrease (6%)	Discount Rate (7%)	1% Increase (8%)	1% Decrease (6%)	Discount Rate (7%)	1% Increase (8%)
$ 44,861,785	$ 29,304,304	$ 18,565,092	$ 34,942,183	$ 20,029,107	$ 10,436,424

Pension Expense, Deferred Outflows of Resources and Deferred Inflow of Resources Related to Pension — For the years ended December 31, 2019 and 2018, SIRTOA recognized pension expense of $7,534,891 and $5,502,713, respectively, related to the Plan.

For the years ended December 31, 2019 and 2018, SIRTOA reported deferred outflows of resources and deferred inflows of resources for the Plan as follows:

	December 31, 2019		December 31, 2018	
	Deferred Outflows of Resources	**Deferred Inflows of Resources**	**Deferred Outflows of Resources**	**Deferred Inflows of Resources**
Differences between expected and actual experience	$ 3,787,046	$ 426,436	$ 2,995,438	$ 503,468
Net difference between projected and actual earnings on pension plan investments	4,731,476	-	-	2,393,408
Changes in proportion and differences between contributions and proportionate share of contributions	3,275,674	-	1,840,121	-
Changes in actuarial assumptions	168,901	775,669	199,411	993,856
Employer contribution to plan subsequent to the measurement date of net pension liability	7,243,508	-	7,876,448	-
Total	$ 19,206,605	$ 1,202,105	$ 12,911,418	$ 3,890,732

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 the changes in proportion and differences between employer contributions and proportionate share of contributions are amortized over an 8.2-year close period beginning the year in which the deferred amount occurs. There were no new annual differences due to changes in actuarial assumptions.

For the years ended December 31, 2019 and 2018, $7,243,508 and $7,846,448, respectively, were reported as deferred outflows of resources related to pension resulting from the Authority's contributions subsequent to the measurement dates. The amount of $7,243,508 will be recognized as a reduction of the net pension liability in the year-ended December 31, 2020. Other amounts reported as deferred outflows of resources related to pension at December 31, 2019 will be recognized as pension expense as follows:

Year ending December 31:	
2020	$ 2,815,200
2021	1,730,249
2022	1,793,860
2023	2,745,765
2024	685,071
Thereafter	990,847
Total	$ 10,760,992

Section 401(k) Plan — SIRTOA's employees may participate in the MTA's deferred compensation plan established in accordance with Internal Revenue Code Section 401(k). The plan was established in 1988 and is currently available to all employees. All amounts of compensation deferred under the plan, and all income attributable to such compensation, are solely the property of the participants. Accordingly, no amounts are reflected in the accompanying financial statements for the 401(k) Plan. SIRTOA is not required to, and did not, make any contributions to the Plan in 2019 or 2018.

7. OTHER POSTEMPLOYMENT BENEFITS

SIROTA 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:

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 and related agencies retired employees and their eligible spouses and dependents, to fund some of the OPEB provided in accordance with SIRTOA'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 cost-sharing multiple-employer defined benefit OPEB plan.

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

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

Benefits Provided — The benefits provided by the OPEB Plan include medical, pharmacy, dental, vision, life insurance and a Medicare supplemental plan. The different types of benefits provided vary by 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. The Authority provides benefits to certain former employees if separated from service within 5 years of attaining retirement eligibility. Employees of SIRTOA are members of the MTA Defined Benefit Plan.

SIRTOA 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 employees who retired as of March 1, 2010, June 1, 2010 or January 1, 2013, depending on the union, do not participate in NYSHIP. These benefits are provided either through a self-insured health plan, a fully insured health plan or an HMO.

SIRTOA 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 SIRTOA must:

(a) have retired;

(b) be receiving a pension;

(c) have at least 10 years of credited service as a member of the MTA Defined Benefit Plan; and

(d) 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 Staten Island Railway, retiring on or after:
  - March 2015 for Transportation Communication Union ("TCU"); and
  - December 16, 2015 for United Transportation Union ("UTU") and American Train Dispatchers Association ("ATDA").

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.

Contributions — SIRTOA is not required by law or contractual agreement to provide funding for the OPEB Plan, other than the "pay-as-you-go" ("PAYGO") amounts. PAYGO is the cost of benefits necessary to provide the current benefits to retirees and eligible beneficiaries and dependents. Employees are not required to contribute to the OPEB Plan. The OPEB Plan Board has the authority for establishing and amending the funding policy. For the year-ended December 31, 2019 and 2018, SIRTOA paid $2,492,326 and $2,820,325 of PAYGO to the OPEB Plan, respectively. The PAYGO amounts included an implicit rate subsidy adjustment of $250,000 and $283,000 for the years ended December 31, 2019 and 2018, respectively.

During 2012, the MTA funded $250 million into the Trust and an additional $50 million during 2013. There have been no further contributions made to the Trust. The discount rate estimates investment earnings for assets earmarked to cover retiree health benefits. Under GASB Statement No. 75, the discount rate depends on the nature of underlying assets for funded plans. Since the amount of benefits paid in 2017 exceeded the current market value of the assets, a depletion date is assumed to occur immediately. Therefore, the discount rate is set equal to the municipal bond index. The MTA elected the Bond Buyer 20-Bond General Obligation 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 year ended December 31, 2018 and 2017, the employer made a cash payment for retiree healthcare of $283,000 and $287,000, 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**
Total blended premiums	$ 2,537,325	$ 1,938,742
Employment payment for retiree healthcare	283,000	287,000
Net Payments	$ 2,820,325	$ 2,225,742

Net OPEB Liability — SIRTOA's proportionate share of the Plan's net OPEB liability reported at December 31, 2019 and 2018 was measured as of the OPEB Plan's fiscal year-end of December 31, 2018 and 2017, respectively. The total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation date of July 1, 2017, and rolled forward to December 31, 2017 and 2018. SIRTOA's proportion of the net OPEB liability was based on a projection of SIRTOA's long-term share of contributions to the OPEB Plan relative to the projected contributions of all participating employers. The following table presents the SIRTOA's proportionate share of the net OPEB liability and corresponding proportion percentage at the measurement date:

	December 31, 2018	**December 31, 2017**
SIRTOA's proportion of the net OPEB liability	0.408 %	0.342 %
SIRTOA's proportionate share of the net OPEB liability	$ 79,905,716	$ 69,429,243

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.

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

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

The total OPEB liability was determined by an actuarial valuation performed on July 1, 2017. Update procedures were used to roll forward the total OPEB liability to December 31, 2017 and 2018, the measurement date. The actuarial valuations were performed using the following actuarial assumptions, applied to all periods included in the measurement, unless specified:

Valuation date	July 1, 2017	July 1, 2017
Measurement date	December 31, 2018	December 31, 2017
Discount rate	4.10%	3.44%
Inflation	2.50%	2.50%
Actuarial cost method	Entry Age Normal	Entry Age Normal
Investment rate of return	6.50%	6.50%

Salary Scale — Salary increases vary by years of service. Rates are shown below for December 31, 2018 and 2017:

Years of Service	Rate of Increase
0	10.00 %
1	9.50
2	9.25
3	9.00
4	8.75
5	6.00
6+	3.25

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 SIRTOA. Long-term trend increases are 4% for dental and vision benefits and 4.5% for Medicare Part B reimbursements, but no more than projected medical and pharmacy trends. The self-insured trend is applied directly for represented employees.

The valuation reflects the actuaries 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 SIRTOA's OPEB liability is a decrease of $4,015,000 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 for December 31, 2018 and 2017:

	NYSHIP Trend		Self-Insured Trend	
Year Ending	Pre-65 Trend	Post-65 Trend	Pre-65 Trend	Post-65 Trend
2018	8.50 %	8.20 %	6.80 %	9.10 %
2019	6.20 %	5.50 %	6.20 %	5.30 %
2020	5.80 %	5.30 %	5.80 %	5.20 %
2021	5.50 %	5.20 %	5.50 %	5.20 %
2022	7.20 %	5.10 %	11.10 %	5.10 %
2023	6.10 %	5.10 %	6.00 %	5.10 %
2024	6.10 %	5.00 %	5.90 %	5.00 %
2025	5.90 %	5.00 %	5.80 %	5.00 %
2026	5.90 %	5.00 %	5.80 %	5.00 %
2027	5.80 %	4.90 %	5.70 %	4.90 %
2037	5.60 %	5.00 %	5.50 %	5.00 %
2047	5.40 %	5.90 %	5.30 %	4.90 %
2057	5.10 %	5.40 %	5.10 %	5.20 %
2067	4.80 %	5.00 %	4.80 %	4.80 %
2077	4.20 %	4.30 %	4.10 %	4.50 %
2087	4.10 %	4.20 %	4.10 %	4.40 %
2097	4.10 %	4.20 %	4.10 %	4.40 %

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, and 4.3% for self-insured medical and pharmacy costs 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 Defined benefit plan.

Preretirement — RP-2000 Employee Mortality Table for Males and Females with blue-collar adjustments.

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.

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

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
US Core Fixed Income	13.00%	2.03%
Global Bonds	15.00%	0.41%
Emerging Market Bonds	5.00%	3.76%
Global Equity	35.00%	5.65%
Non-US Equity	15.00%	6.44%
Global REITs	5.00%	5.80%
Hedge Funds — MultiStrategy	12.00%	3.28%
	100.00%	

Assumed Inflation — Mean	2.50%
Assumed Inflation — Standard Deviation	1.65%
Portfolio Arithmetic Mean Return as per Actuary	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 and 2017 of 4.10% and 3.44%, respectively.

Sensitivity of SIRTOA's Proportionate Share of the Net OPEB Liability to Changes in the Discount Rate — The following presents SIRTOA's proportionate share of the net OPEB liability, as well as what SIRTOA's proportionate share of the 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:

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	December 31, 2018			December 31, 2017		
	1% Decrease (3.10%)	Discount Rate (4.10%)	1% Increase (5.10%)	1% Decrease (2.44%)	Discount Rate (3.44%)	1% Increase (4.44%)
Proportionate share of the net OPEB liability	$ 91,421,053	$ 79,905,716	$ 70,423,568	$ 80,028,599	$ 69,429,243	$ 60,917,235

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

	December 31, 2018			December 31, 2017		
	1% Decrease	Healthcare Cost Current Trend Rate *	1% Increase	1% Decrease	Healthcare Cost Current Trend Rate *	1% Increase
Proportionate share of the the net OPEB liability	$ 68,261,988	$ 79,905,716	$ 94,556,759	$ 59,470,300	$ 69,429,243	$ 82,206,018

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

OPEB Expense, Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB — For the year ended December 31, 2019 and 2018, SIRTOA recognized OPEB expense of $8,325,384 and $5,869,316, respectively, which represents its proportionate share of the Plan's OPEB expense.

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, changes in assumptions and the changes in proportion and differences between employer contributions and proportionate share of contributions are amortized over a 7.4-year close period, beginning the year in which the deferred amount occurs.

At December 31, 2019 and 2018, SIROTA reported deferred outflows of resources and deferred inflows of resources related to OPEB as follows:

	December 31, 2019		December 31, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 40,515	$ 68,473	$ 40,231	$ -
Changes in assumptions	2,714,231	6,353,279	2,695,172	-
Net difference between projected and actual earnings on OPEB plan investments	75,755	-	-	72,145
Changes in proportion and differences between contributions and proportionate share of contributions	11,275,252	-	-	-
Employer contributions to the plan subsequent to the measurement of net OPEB liability	2,492,326	-	2,820,325	-
Total	$ 16,598,079	$ 6,421,752	$ 5,555,728	$ 72,145

For the year ended December 31, 2019 and 2018, $2,492,326 and 2,820,325, respectively, were reported as deferred outflows of resources related to OPEB resulting from both SIRTOA's contributions subsequent to the measurement date and an implicit rate subsidy adjustment. The amount of $2,492,326 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:

Year ending December 31:	
2020	$ 1,282,054
2021	1,282,054
2022	1,282,054
2023	1,303,582
2024	1,268,498
Thereafter	1,265,759
Total	$ 7,684,001

8. RISK MANAGEMENT

SIRTOA is exposed to various risks of loss related to torts; theft of, damage to and destruction of its assets; injuries to persons, including employees; and natural disasters.

There are a number of claims and suits against SIRTOA for injuries to persons. The amounts claimed are significantly higher than the amount which management estimates will ultimately be paid. Although simple claims for minor amounts are frequently settled shortly after they arise, the settlement of more complex and large claims may take years after the claim is asserted.

It is not possible to determine with any certainty the amount for which each claim will ultimately be settled because there are many subjective factors in such determinations and all of the issues may not be known for months or even years after the incident at issue.

SIRTOA is self-insured up to certain per occurrence limits for liability claims arising from injuries to persons, excluding employees. For claims arising from incidents that occurred on or after November 1, 2006, but before November 1, 2009, the self-insured retention limit was $2.3 million per occurrence. Claims arising on or after November 1, 2009, but before November 1, 2012 were subject to a $2.6 million limit. Effective November 1, 2012, the retention limit was increased to $3.0 million. Effective October 31, 2015, the retention limit was increased to $3.2 million. Lower limits applied for claims arising prior to November 1, 2006. SIRTOA is self-insured for work-related injuries to employees. The annual cost associated with injuries to persons, other than employees, and damage to third-party property, is reflected in expenses as public liability claims in the accompanying consolidated statements of revenues, expenses and change in net position.

SIRTOA establishes its liabilities to employees and to the general public on the basis of independent actuarial estimates of future liability.

A summary of activity in the estimated liability arising from injuries to persons, including employees, and damage to third-party property, for the year ended December 31, 2019 and 2018, is as follows:

	2019	2018
Balance — beginning of year	$ 16,680,726	$ 15,681,354
Activity during the year:		
Current year claims and changes in estimates	2,936,891	2,091,321
Claims paid	(1,053,321)	(1,091,949)
Balance — end of year	18,564,296	16,680,726
Less current portion	(1,095,293)	(1,050,886)
Long-term liability	$ 17,469,003	$ 15,629,840

First Mutual Transportation Assurance Company (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 limit is $2.3 million for SIRTOA. For claims arising from incidents that occurred on or after November 1, 2009, but before November 1, 2012, the self-insured retention limit is $2.6 million for SIRTOA. Effective November 1, 2012, the self-insured retention limits for ELF was increased to $3 million for SIRTOA. Effective October 31, 2015 the self-insured retention limits for ELF was increased to $3.2 million for SIRTOA. 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 million. 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 million per occurrence with a $50 million annual aggregate. FMTAC charges appropriate annual premiums based on loss experience and exposure analysis to maintain the fiscal viability of the program. On December 31, 2019, the balance of the assets in this program was $164.1 million.

MTA also maintains an All-Agency Excess Liability Insurance Policy that affords the MTA Group additional coverage limits of $350 million for a total limit of $400 million ($350 million excess of $50 million). 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 million.

On March 1, 2019, the “nonrevenue fleet” automobile liability policy program was renewed. This program provides third-party auto liability insurance protection for the MTA Group, including SIRTOA. The policy provides $11 million per occurrence limit with a $0.5 million per occurrence deductible for SIRTOA. FMTAC renewed its deductible buy back policy, where it assumes the liability of the agencies for their deductible.

Property Insurance — Effective May 1, 2019, FMTAC renewed the all-agency property insurance program. For the annual period commencing May 1, 2019, FMTAC directly insures property damage claims of the Related Entities in excess of a $25 million per occurrence deductible, subject to an annual $75 million aggregate deductible. The total All Risk program annual limit is $575 million 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 million per occurrence. The property insurance policy provides replacement cost coverage for all risks (including Earthquake, Flood and Wind) of direct physical loss or damage to all real and personal property, with minor exceptions. The policy also provides extra expense and business interruption coverage.

Supplementing the $575 million per occurrence noted above, FMTAC’s property insurance program has been expanded to include $125 million of fully collateralized earthquake coverage for an event of a certain index value and for storm surge coverage for losses from storm surges that surpass specified trigger levels in the New York Harbor or Long Island Sound and are associated with named storms that occur at any point in the three year period from May 23, 2017 to April 30, 2020. The expanded protection is reinsured by MetroCat Re Ltd. 2017-1, a Bermuda special purpose insurer independent from the MTA and formed to provide FMTAC with capital markets based property reinsurance. The MetroCat Re Ltd. 2017-1 reinsurance policy is fully collateralized by a Regulation 114 trust invested in U.S. Treasury Money Market Funds. The additional coverage provided is parametric and available for storm surge losses resulting from a storm that causes water levels that reach the specified index values, and also for an earthquake event of a certain index value.

With respect to acts of terrorism, FMTAC provides direct coverage that is reinsured by the United States Government for 81% of “certified” losses in 2019 and 80% of “certified” losses in 2020, as covered by the Terrorism Risk Insurance Program Reauthorization Act (“TRIPRA”) of 2015. The remaining 19% (2019) and 20% (2020) of the Related Entities’ losses arising from an act of terrorism would be covered under the additional terrorism policy described below. No federal compensation will be paid unless the aggregate industry insured losses exceed a trigger of $180 million in 2019 and $200 million in 2020. In December 2019, the United States government’s reinsurance was extended until 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) 19% of any “certified” act of terrorism up to a maximum recovery of $204.3 million for any one occurrence and in the annual aggregate during 2019 and 20% of any “certified” act of terrorism up to a maximum recovery of $215 million for any one occurrence and in the annual aggregate during 2020 (2) the TRIPRA FMTAC captive deductible (per occurrence and on an aggregated basis) that applies when recovering under the “certified” acts of terrorism insurance or (3) 100% of any "certified" terrorism loss which exceeds $5 million and less than the $180 million TRIPRA trigger up to a maximum recovery of $180 million for any occurrence and in the annual aggregate during 2019 or 100% of any "certified" terrorism loss which exceeds $5 million and less than the $200 million TRIPRA trigger up to a maximum recovery of $200 million for any occurrence and in the annual aggregate during 2020.

Additionally, MTA purchases coverage for acts of terrorism which are not certified under TRIPRA to a maximum of $204.3 million in 2019 and $215 million in 2020. Recovery under the terrorism policy is subject to a deductible of $25 million per occurrence and $75 million 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 million future losses in that policy year are subject to a deductible of $7.5 million. The terrorism coverages expire at midnight on December 31, 2020.

At December 31, 2019, SIRTOA had no outstanding claims requiring FMTAC coverage. At December 31, 2019, FMTAC had $971.0 million of assets to insure current and future claims.

9. CONTINGENCIES

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 questioned costs may occur, ultimate repayments required of the MTA or SIRTOA have been infrequent in prior years.

Operating Lease — SIRTOA is currently obligated under an operating lease agreement for its main office. The lease expires on January 13, 2023. Future minimum base rent under the lease is $232,412 commencing January 14, 2020, with rent increasing at a rate of 2.5% per annum over the life of the lease.

Years Ending December 31	Operating
2020	$ 232,412
2021	238,222
2022	244,178
2023	250,282
Total minimum lease payments	$ 965,094

Total rent expense for the years ended December 31, 2019 and 2018, were $304,629 and $290,927, respectively.

Pollution Remediation — In accordance with GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*, in 2019, SIRTOA recognized a $108,550 decrease in the remediation liability as encumbrances for new remediation work were less than amounts expended on existing projects. In 2018, SIRTOA recognized $1,973,280 in pollution remediation expenses. The expense provision was measured at its current value utilizing the prescribed expected cash flow method (see Note 2). Pollution remediation obligations are estimates subject to changes resulting from price increases or reductions, technology, or changes in applicable laws or regulations. SIRTOA does not expect any recoveries of cost that would have a material effect on the recorded obligations.

A summary of the activity in pollution remediation liability at December 31, 2019 and 2018, were as follows:

	2019	2018
Balance at beginning of year	$ 2,223,339	$ 1,291,284
Activity during the year:		
Change in estimates	(108,550)	1,973,280
Payments	(322,063)	(1,041,225)
Balance at end of year	1,792,726	2,223,339
Less current portion	(326,385)	(412,507)
Long-term liability	$ 1,466,341	$ 1,810,832

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

10. RELATED PARTY TRANSACTIONS

SIRTOA receives support services from the MTA in the areas of budget, cash management, finance, legal, real estate, treasury, risk and insurance management, and other services, most of which are charged back to SIRTOA through intercompany billings. The MTA also provides funding for SIRTOA's capital investments via MTA debt issuance and federal capital grant pass-throughs. SIRTOA recognizes funds contributed for the purchase of capital assets as contributed capital in the consolidated statements of revenues, expenses, and changes in net position. The MTA also provides short-term loans, as required, to supplement SIRTOA's working capital needs.

SIRTOA has intercompany transactions with New York City Transit Authority related to farecard settlements, service agreements, shared operating contracts and other operating receivables and payables. State and City tax — supported subsidies received by SIRTOA from New York City Transit Authority to support operations are recorded as nonoperating revenues.

The resulting receivables and payables from the above transactions are recorded in Due to/from MTA, MTA capital program funds receivable, and Due to New York City Transit Authority, included in the accompanying consolidated statements of net position.

Related party transactions consist of the following at December 31, 2019 and 2018:

	2019		2018	
	Receivable	(Payable)	Receivable	(Payable)
MTA	$ 644,638	$(39,065,879)	$ 768,986	$ (44,755,366)
New York City Transit Authority	1,958,641	(1,539,872)	1,340,812	(1,600,237)
Total MTA and New York City Transit Authority	$ 2,603,279	$(40,605,751)	$ 2,109,798	$ (46,355,603)

11. SUBSEQUENT EVENTS

Updated assessment of impacts from the novel coronavirus (COVID-19) pandemic on SIRTOA's finances and operations:

- *Background relating to the global coronavirus pandemic* – The COVID-19 outbreak is continuing to have an adverse and severe impact on MTA's financial condition and operating results. 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 12, 2020, the World Health Organization declared the COVD-19 outbreak to be a pandemic in the face of the global spread of the virus. The COVID-19 pandemic has dramatically altered the behavior of businesses and people in a manner that is having negative effects on global and local economies. In addition, stock markets in the U.S. and globally, have seen significant declines and volatility attributed to concerns over COVID-19, and capital markets remain disrupted. These adverse impacts have intensified and continue to evolve daily globally, nationally, and particularly within the State and the Authority's service area, which has become the most severely impacted region in the United States, with the most confirmed cases of infection, and regrettably the most fatalities, from COVID-19. On March 7, 2020 Governor Cuomo declared a Disaster Emergency in the State of New York and on March 13, 2020 President Trump declared a national state of emergency as a result of the COVID-19 pandemic. In addition, by order of Governor Cuomo (New York State on PAUSE), as of Sunday, March 22nd, all non-essential businesses statewide were required to be closed, among other restrictive social distancing and related measures. These related measures, most recently, include by Governor's Executive Order, that effective at 8 p.m. on Friday, April 17, 2020 any individual who is over age two and able to medically tolerate a face-covering shall be required to cover their nose and mouth with a mask or cloth face-covering when in a public place and unable to maintain, or when not maintaining, social distance. New York State on PAUSE restrictions remain in place at least through May 15, 2020. This intervention to fight the aggressive spread of the COVID-19 pandemic has further eroded already severely diminished public transportation usage during the duration of the COVID-19 pandemic.

- *Currently adopted Federal legislative and administrative actions* – The Federal government has taken several actions which are expected to provide flexibility and substantial additional funding to the Authority. The Federal Transit Administration (FTA) has given transit grantees, including the Authority, the flexibility to apply certain existing grant program proceeds, previously only available for capital expenditures, to operating expenses or other purposes to address COVID-19 pandemic impacts.

  In addition, Federal emergency legislation, the "Coronavirus Aid, Relief and Economic Security Act" or "CARES Act", received final passage by Congress and was signed into law by the President on March 27, 2020. The CARES Act through FTA's formula funding provisions is expected to provide approximately $3.8 billion to MTA. Funding will be provided at a 100 percent Federal share, with no local match required, and will be 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.

  The Authority is also eligible for FEMA payments in addition to the CARES Act funding. FEMA will cover expenses that are over and above normal costs that are related to COVID-19, such as sanitizing Authority facilities and safety at job sites to ensure COVID -19 regulations are being adhere to.

- *Updated assessment of 2020 impacts of the COVID-19 pandemic and economic study analysis* – On April 16, 2020, MTA Chairman and Chief Executive Officer Patrick J. Foye wrote to the New York State Congressional delegation, urging Congressional action to provide an additional $3.9 billion in Federal grant assistance "to stem the immediate hemorrhaging in the MTA's 2020 operating budget". Such aid would be supplemental to the approximately $3.8 billion contained in the CARES Act, and would have to be included in any upcoming new Congressional COVID-19 aid package, and is also exclusive of any capital infrastructure stimulus funding to be considered by Congress and the Administration.

  The CARES Act funding amounts for MTA derived from a conservative estimate based on the information MTA management had at the time. A clearer picture of the impact of the crisis has emerged over the last few weeks, and now with the aid of a detailed economic study led by McKinsey & Company (the "McKinsey Report"), MTA management projects the full 2020 financial impact of the COVID-19 crisis to the MTA to be between $7.0 and $8.5 billion. After the receipt of the expected $3.8 billion under the CARES Act, the net financial impact in 2020 is estimated to be between $3.2 and $4.7 billion. The $3.9 billion request is the midpoint of this range.

  Compared to 2019 results, ridership has now declined 93 percent on the subways and buses. Based on the current ridership and reasonable forecasts of a slow return to higher (but not pre-COVID-19 pandemic) levels in 2020, MTA, based upon projections in the McKinsey Report, expects to see combined losses in fare and toll revenues of between $4.7 and $5.9 billion in 2020, and additional impacts in 2021. Projections for 2021 are of necessity more speculative at this time and were beyond the scope of the McKinsey Report.

  Moreover, the McKinsey Report, based upon limited available data, forecasts losses of between $1.6 and $1.8 billion in State and local taxes dedicated to MTA in 2020 as a result of the extraordinary economic downturn facing the region and nation.

  Finally, MTA is also incurring additional expenses related to ensuring the safety of employees and riders, by disinfecting stations, rolling stock and work spaces to a new, even more costly level. The McKinsey Report estimates these incremental operational expenses for 2020 to be between $700 and $800 million (inclusive of a portion of the $300 million COVID-19 annualized costs estimate referred to in the March 25th Supplement). The dedication of MTA workers has come at the highest cost in illness and loss of life. Sixty-eight MTA employees have tragically passed away due to COVID-19. The Authority alone has more than 2,400 subway and bus employees who have tested positive for COVID-19. Another 4,400 are on home quarantine and thousands more are calling out sick. MTA does not expect those overhead costs to decline, but instead to increase as ridership returns.

  The McKinsey Report provided an estimate of the shortfalls discussed below through the end of calendar year 2020, ranging between $3.2 and $4.7 billion after accounting for the $3.8 billion the MTA is expected to receive through the CARES Act.

  By way of background to the McKinsey Report forecasts, on March 17, 2020, five days before the stay-at-home order went into effect for New York State, MTA projected that it would face a 2020 budget shortfall of at least $4 billion in fare and toll revenues, based upon then current ridership and bridge and tunnel crossings declines. This estimate explicitly did not take into account the impact of the COVID-19 pandemic on taxes and other dedicated revenue streams that support MTA's operations. Approximately, one month later, it is now clear that the

COVID-19 pandemic is more severe and of longer duration than had been anticipated. The impact to the Authority's finances is material and leaves a gap that must be filled in order to sustain normal operations. The Authority has begun refining the fare revenue loss projections to reflect these changes, as well as projecting losses in the tax and other subsidy revenues that generally make up approximately one-half of MTA's total revenue sources. McKinsey & Company was contracted by MTA to analyze the potential impact of the COVID-19 pandemic on MTA's 2020 calendar year revenues, including the Authority.

As noted above, this analysis did not attempt to capture the impact of the COVID-19 pandemic on Authority's finances in 2021. A view of 2021 will need to be developed when the key factors that influence it; the course of the virus, public health responses, including social isolation measures, and the trajectory of the economic recovery, can be seen with greater clarity. The McKinsey Report focused on operating costs and did not make any assumptions related to additional capital expenditures that the Authority may incur over the course of the COVID-19 pandemic. It is limited to giving an initial view of additional operating costs.

In general, the McKinsey Report reviewed two scenarios for how revenues may be affected in the full calendar year 2020. The scenarios developed reflected different assumptions for how transit ridership will behave across several variables. The report further analyzed MTA's dedicated revenue streams and the impact of the COVID-19 pandemic on the variety of economic activity that generates much of the dedicated tax component of this revenue stream. The estimated incremental negative revenue impacts on MTA, including the Authority, after accounting for the CARES Act assistance of $3.8 billion, ranged from $3.2 billion to $4.7 billion. The midpoint between these two scenarios, $3.9 billion, was selected as the basis of MTA's April 16th request to Congress.

There is substantial risk that the higher end of the range could materialize based on uncertainties in the course of the COVID-19 pandemic, the speed of development and mass promulgation of high-volume clinical testing and protocols, the availability of medical supplies and equipment, continued public adherence to protective policies, and Federal policy response.

- *MTA liquidity resources* – MTA currently has liquidity resources, consisting of a current running cash balance, internal available flexible funds, OPEB resources and commercial bank lines of credit totaling $1.201 billion ($1.0 billion of which has been drawn). *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.*

  Longer-term resource options to address the COVID-19 pandemic impacts, may include, but are not limited to, (i) approximately $4 billion in federal emergency transit grants pursuant to the CARES Act, (ii) replacing programmed pay-as-you-go capital funds with long term bonding, (iii) various debt restructuring options generating potential resources depending upon market conditions and other matters, and (iv) applying new, federal FTA grant flexibility rules to use in the current federal fiscal year for operating relief in the emergency. The MTA Board on March 25, 2020 authorized MTA to secure an additional $2 billion in commercial bank lines of credit market conditions permitting. Also, see the additional significant financial assistance and flexibility provided in the State's FY 2020-21 Enacted Budget. There can be no assurance that MTA will be successful in securing additional lines of credit.

As noted above, exercising these options would come at a cost, including increased longer-term borrowing and potential adverse impacts on the timing of MTA initiatives to improve its systems. The loss of farebox and toll revenues, potential declines in State and local, as well as reprogramming of available federal and possibly State generated funding support for capital purposes, to urgent financial needs, will result in delays and shortfalls in implementing Capital Plan projects. The full impact of the COVID-19 pandemic on Capital Plan implementation cannot be determined at this time.

Finally, as is provided in the February Plan, MTA relies on State and local subsidies and dedicated taxes. The financial stress which MTA is experiencing as a result of the COVID-19 pandemic is being similarly felt at all levels of the government and in the social and financial lives of MTA patrons and State and local residents. This can be expected to have a substantial adverse impact on State and local revenues, on dedicated tax collections, and thus on the capacity of the State and local governments to maintain or raise the level of financial support to MTA during this crisis.

- *NY Essential Service Plan* – On March 24, 2020, MTA management announced the implementation of the "NY Essential Service Plan (Service Plan)." The Service Plan is designed to ensure healthcare workers, first responders and essential personnel are able to get to and from work by public transportation. The Authority have implemented temporary reduced service schedules.

  The Service Plan includes the following specific measures:

  - *Subways and buses:* On the subways, beginning March 25, 2020, service reductions were implemented. The service changes preserve the Authority's a.m. and p.m. peak service to get first responders and essential personnel to their destinations. Some lines will not run Monday through Friday, including the B, W and Z lines, which will be covered by other local service. Some express services and branches on some lines will operate only local service. The Authority will continue to undertake a line-by-line, hour-by-hour analysis of ridership, retaining flexibility to increase service as necessary.
  - *Paratransit:* The paratransit program has eliminated shared rides, in accordance with the recommended public health guidance, and extended eligibility for existing Access-A-Ride customers. The paratransit system continues to have capacity to serve demand.

  All of the foregoing service changes are described on MTA website, the MYmta app and on countdown clocks in stations and on platforms.

  The schedule changes follow the Governor's "New York State on PAUSE" order, which directed New Yorkers use of public transportation for only essential travel and attempts to limit potential exposure by spacing out riders by six feet. The Authority continues the aggressive disinfecting procedures at each of its stations twice daily, and continue daily sanitization of its fleet of rolling stock with the full fleet of train cars and buses disinfected every 72 hours or less. The Access-A-Ride dedicated fleet is disinfected daily. Surfaces frequently used by customers in stations, such as turnstiles, MetroCard, and handrails, will be disinfected twice daily with EPA-approved and National Centers for Disease Control-endorsed disinfectants.

  The Authority is employing its pandemic plan, which is updated regularly, and serves as a blueprint guiding the Authority's response in accordance with Federal, State and local authorities. Through the end of March, the Authority has distributed the following resources to operating employees: masks, gloves to those whose jobs require it, bottles of hand sanitizer, gallons of cleaning supplies and boxes of sanitizing wipes. Additionally, the Authority continues to replenish and maintain a stockpile of these essential items so that the Authority can continue to distribute them as needed. In addition, to these actions, the Authority has taken a number of aggressive steps to ensure worker safety, including reducing the number of crews that need to report to work, implementing rear-door boarding to ensure social distance for bus operators, eliminating cash transactions and, as detailed above, disinfecting workplaces, trains, buses and all rolling stock, among other actions. The Authority is also working closely with the National Centers for Disease Control, the State Department of Health, and other government agencies during this time.

- *Capital plan procurement and construction contract delays* – MTA Construction and Development Company (MTACDC) is currently evaluating the impacts of the COVID-19 pandemic on MTA's Capital Plans. MTACDC expects to reassess a path forward for implementation of the Capital Plans in the face of the COVID-19 pandemic in 60 days. In the meantime, MTACDC will cease the award of new Capital Plan construction or consulting contracts and, with few exceptions, MTACDC is, effective April 1, 2020, suspending action on open solicitations for all such contracts. With limited exceptions, the dates for submission of bids, requests for qualification and requests for proposals for open solicitations for MTACDC, or for any other capital budget-funded MTA projects, will be adjourned until further notice. Similarly, currently scheduled qualification hearings and pre-bid conferences have been cancelled and will be rescheduled as appropriate. The full impact of the COVID-19 pandemic on Capital Plan implementation cannot be determined at this time.

- *New York State fiscal year 2020-21 budget provisions of Importance to MTA* – Several provisions in the State's fiscal year 2020-21 budget (as passed by both the State Assembly and State Senate and signed by the Governor on April 3, 2020 the "State FY 2020-21 Enacted Budget"), are intended to provide significant financial assistance and flexibility to aid MTA in addressing the adverse impacts caused by the COVID-19 pandemic. Among the provisions in the State FY 2020-21 Enacted Budget addressing MTA's needs are the following:

  (1) amends existing law to allow MTA to use monies in the Central Business District Tolling Lockbox Fund (the CBD Tolling Lockbox Fund) for two years (2020 and 2021) to offset decreases in revenue (i.e. lost taxes, fees, charges, fares and tolls) or increases in operating costs due in whole or in part to the State emergency disaster caused by the COVID-19 pandemic. The CBD Tolling Lockbox Fund currently includes Internet sales tax revenue and mansion tax revenue that will be used for operations. In the future, CBD tolling revenue will be added when that program is up and running, although CBD tolling revenue may be restricted under Federal law to capital expenses. All revenues deposited in such fund were under prior law only available for capital costs of MTA's 2020-24 Capital Plan and successor capital plans, and costs of the Central Business District tolling program. This provision also provides that if MTA receives funds/reimbursements from Federal government or insurance due to the COVID-19 pandemic, MTA must repay the CBD Tolling Lockbox Fund, but only after it has first fully repaid any COVID-19 pandemic related public or private borrowings, draws on lines of credit; issuances of revenue anticipation notes, internal loans; or use of corpus of MTA's OPEB trust;

  (2) amends existing law to increase MTA's bond cap from $55.5 billion to $90.1 billion through 2024;

(3) creates new authorization for MTA to issue up to $10.0 billion of bonds for three years (2020-2022) to offset decreases in revenue (i.e. lost taxes, fees, charges, fares and tolls) or increases in operating costs of the MTA and its Related Entities due in whole or in part to the State disaster emergency caused by the COVID-19 pandemic;

(4) commits the State and the City to each pay $3.0 billion to fund capital costs of the MTA's 2020-2024 Capital Plan. Additionally,
   a. State's Director of the Budget will determine schedule for the City's payments of its $3 billion share to MTA,
   b. if the City does not pay in full any of its scheduled payments, the Director of the Budget shall require the State Comptroller to intercept aid to localities appropriations to the City, or any other revenue source of the City, including sales and use tax, in an amount equal to the City's unpaid balance and deposit it into a newly established State-held fund, the MTA Capital Assistance Fund, and
   c. the State Comptroller must pay monies deposited in the MTA Capital Assistance Fund to MTA without appropriation, and

(5) requires the City, beginning on July 1, 2020, to pay one-half of the MTA's net paratransit operating expenses for four years: 2020, 2021, 2022, and 2023, and provides a statutory mechanism to intercept funds otherwise available to the City to insure payment of the City's share, if necessary. The City's contribution for each of those years is capped in the law as follows: 2020: $215 million; 2021: $277 million; 2022: $290 million; and 2023: $310 million.

- *Dedication of 341-7 Madison Avenue Redevelopment Proceeds to MTA Capital Program* - MTA and the City of New York announced on April 2, 2020, an agreement on a site-specific value capture strategy to speed development of 341-7 Madison Avenue, the site of the MTA's former headquarters in midtown Manhattan. Real estate taxes and other revenue generated from the future ground lease for the redevelopment of the property will be dedicated to the MTA capital program. The redevelopment plan is projected to generate more than $1 billion over the life of the ground lease to fund approved MTA New York City Transit projects. The agreement is part of the City of New York's commitment to provide $600 million from alternative non-tax-levy revenue sources as part of its $2.66 billion contribution to MTA's 2015-2019 Capital Plan.

- *COVID-19 family benefits agreement* – On April 14, 2020 the MTA, Transport Workers Union Local 100 (TWU) reached an agreement on COVID-19 family benefits for transportation workers tragically lost in the pandemic. The benefits include a payment of $500,000 from the Authority to the surviving family of any worker who lost their life as a result of COVID-19, in addition to providing health insurance to the spouse and dependents to the age of 26 of the surviving family for three years. The Authority continues to have ongoing discussions with all labor partners to extend the COVID-19 family benefits agreement to all members of its represented workforce. The agreement will also be extended to all non-represented employees. The agreement was approved by the Board on April 22, 2020.

* * * * * *

REQUIRED SUPPLEMENTARY INFORMATION

DRAFT

STATEN ISLAND RAPID TRANSIT OPERATING AUTHORITY

(Component Unit of Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF SIRTOA'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY IN THE MTA DEFINED BENEFIT PENSION PLAN AT DECEMBER 31:

(In thousands)

	2018	2017	2016	2015	2014
SIRTOA's proportion of the net pension liability	2.09%	2.12%	2.19%	2.15%	2.16%
SIRTOA's proportionate share of the net pension liability	$29,304	$20,029	$22,778	$27,605	$22,346
SIRTOA's actual covered-employee payroll	$24,343	$23,461	$28,235	$19,779	$18,770
SIRTOA's proportionate share of the net pension liability as a percentage of the Authority's covered-employee payroll	120.38%	85.37%	80.67%	139.57%	119.05%
Plan fiduciary net position as a percentage of the total pension liability	73.33%	79.87%	71.82%	70.44%	74.77%

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available. In accordance with GASB No. 68, information was not readily available for periods prior to 2014.

STATEN ISLAND RAPID TRANSIT OPERATING AUTHORITY
(Component Unit of Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF SIRTOA'S CONTRIBUTIONS TO THE MTA DEFINED BENEFIT PENSION PLAN FOR THE YEARS ENDED DECEMBER 31:

(In thousands)

	2019	2018	2017	2016	2015	2014
Actuarially Determined Contribution	$ 7,244	$ 6,930	$ 6,719	$ 6,360	$ 5,885	$ 5,865
Actual Employer Contribution	7,244	7,876	6,132	5,885	6,165	8,580
Contribution Deficiency (Excess)	-	(946)	587	475	(280)	(2,715)
Covered Payroll	24,730	24,343	23,461	28,235	19,779	18,770
Contribution as a % of Covered Payroll	29.29%	32.36%	26.14%	20.84%	31.17%	45.71%

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available. In accordance with GASB No. 68, information was not readily available for periods prior to 2014.

Notes to Schedule of SIRTOA's Contributions to Pension Plan:

Significant methods and assumptions used in calculating the actuarially determined contributions of an employer's proportionate share in a Cost Sharing, Multiple-Employer pension plan, the MTA Defined Benefit 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 changes of benefit terms in the January 1, 2018 funding valuation.

Changes of Assumptions
There were no changes of benefit assumptions in the January 1, 2018 funding valuation.

STATEN ISLAND RAPID TRANSIT OPERATING AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF SIRTOA'S PROPORTIONATE SHARE OF THE NET OPEB LIABILITY IN THE MTA OPEB PLAN AT:

(In thousands)

Plan Measurement Date (December 31):	2018	2017
SIRTOA's proportion of the net OPEB liability	0.41%	0.34%
SIRTOA's proportionate share of the net OPEB liability	$ 79,906	$ 69,429
SIRTOA's covered payroll	$ 24,343	$ 20,061
SIRTOA's proportionate share of the net OPEB liability as a percentage of its covered payroll	328.25%	346.09%
Plan fiduciary net position as a percentage of the total OPEB liability	1.76%	1.79%

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.

DRAFT

STATEN ISLAND RAPID TRANSIT OPERATING AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF SIRTOA'S CONTRIBUTIONS TO THE OPEB PLAN AND NOTES TO SCHEDULE OF SIRTOA'S CONTRIBUTION TO THE OPEB PLAN FOR THE YEARS ENDED DECEMBER 31:

(In thousands)

	2019	2018
Actuarially Determined Contribution	n/a	n/a
Actual Employer Contribution [(1)]	$ 2,492	$ 2,820
Contribution Deficiency (Excess)	n/a	n/a
Covered Payroll	24,730	24,343
Actual Contribution as a Percentage of Covered Payroll	10.08%	11.58%

(1) Actual employer contribution includes the implicit rate of subsidy adjustment of $250.0 and $283.0 for the years ended December 31, 2019 and 2018, respectively.

Notes to Schedule of SIRTOA's Contribution to the OPEB Plan:

Methods and assumptions used to determine contribution rates:

Valuation date	July 1, 2017	July 1, 2017
Measurement date	December 31, 2018	December 31, 2017
Discount rate	4.10%	3.44%
Inflation	2.50%	2.50%
Actuarial cost method	Entry Age Normal	Entry Age Normal
Investment rate of return	6.50%	6.50%

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

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

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

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First Mutual Transportation Assurance Company

(Component Unit of the Metropolitan Transportation Authority)

Financial Statements as of and for the Years Ended December 31, 2019 and 2018, and Independent Auditors' Report

FIRST MUTUAL TRANSPORTATION ASSURANCE COMPANY
(Component Unit of the Metropolitan Transportation Authority)

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INDEPENDENT AUDITORS' REPORT

To the Members of the Board of
Metropolitan Transportation Authority:

Report on the Financial Statements

We have audited the accompanying statements of net position of the First Mutual Transportation Assurance Company (the "Company"), a component unit of the Metropolitan Transportation Authority ("MTA"), as of December 31, 2019 and 2018, and the related statements of revenues, expenses and changes in net position and cash flows for the years then ended, and the related notes to the financial statements, which collectively comprise the Company's financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the net position of the Company as of December 31, 2019 and 2018, and the respective changes in net position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, as listed in the table of contents, be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audits of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

__________, 2020

OVERVIEW OF THE FINANCIAL STATEMENTS

Introduction—The following is a narrative overview and analysis of the financial activities of the First Mutual Transportation Assurance Company (the "Company" or "FMTAC") for the years ended December 31, 2019 and 2018. This discussion and analysis is intended to serve as an introduction to the Company's financial statements which have the following components: (1) Management's Discussion and Analysis ("MD&A"), (2) Financial Statements and (3) Notes to the Financial Statements.

Management's Discussion and Analysis—This MD&A provides an assessment of how the Company's position has improved or deteriorated and identifies the factors that, in management's view, significantly affected the Company's overall financial position. It may contain opinions, assumptions or conclusions by the Company's management that should not be considered a replacement for, and must be read in conjunction with, the financial statements.

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

The Statements of Revenues, Expenses and Changes in Net Position show how the Company's net position changed during each year and accounts for all of the revenues and expenses, measures the success of the Company's operations from an accounting perspective over the past year, and can be used to determine how the Company has funded its costs.

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

The Notes to the Financial Statements—The notes to the financial statements provide additional information that is essential for a full understanding of the information provided in the financial statements.

FINANCIAL REPORTING ENTITY

On December 5, 1997, the Metropolitan Transportation Authority ("MTA") began its operation of its newly incorporated captive insurance company, FMTAC. FMTAC was created by the MTA to engage in the business of acting as a pure captive insurance company under Section 7005, Article 70 of the Insurance Law and Section 1266 Subdivision 5 of the Public Authorities Law of the State of New York. FMTAC's mission is to continue, develop, and improve the insurance and risk management needs as required by the MTA. The MTA is a component unit of the State of New York.

CONDENSED FINANCIAL INFORMATION

The following sections will discuss the significant changes in the Company's financial position for the years ended December 31, 2019 and 2018. Additionally, examinations of major economic factors that have contributed to these changes are provided. It should be noted that for purposes of the MD&A, summaries of the financial statements and the various exhibits presented are extracted from the Company's financial statements, which are presented in accordance with accounting principles generally accepted in the United States of America.

	As of December 31,			Increase/(Decrease)	
(In thousands)	**2019**	**2018**	**2017**	**2019–2018**	**2018–2017**
ASSETS					
CURRENT ASSETS	$ 318,792	$ 434,726	$ 429,191	$ (115,934)	$ 5,535
NONCURRENT ASSETS	652,135	543,601	465,003	108,534	78,598
TOTAL ASSETS	$ 970,927	$ 978,327	$ 894,194	$ (7,400)	$ 84,133

Significant Changes in Assets

December 31, 2019 versus December 31, 2018

Total assets have decreased by $7,400 or 0.8 percent, from December 31, 2018 to December 31, 2019. The fluctuation in the total assets of FMTAC was the net result of an increase investments offset by a decrease in premium receivable due from affiliates. Investments increased primarily due to collateral funding of Owner Controlled Insurance Programs ("OCIP") trust accounts and unrealized gains. The decrease in premiums receivable was due to the receipt of OCIP premiums from affiliates.

December 31, 2018 versus December 31, 2017

Total assets have increased by $84,133 or 9.4 percent, from December 31, 2017 to December 31, 2018. The fluctuation in the total assets of FMTAC was the net result of an increase investments offset by a decrease in premium receivable due from affiliates. Investments increased mostly due to collateral funding of OCIP trust accounts. The decrease in premiums receivable was due to the partial payment of the OCIP premiums by the affiliates.

	As of December 31,			Increase/(Decrease)	
(In thousands)	**2019**	**2018**	**2017**	**2019–2018**	**2018–2017**
LIABILITIES AND NET POSITION					
CURRENT LIABILITIES	$ 270,314	$ 321,252	$ 306,520	$ (50,938)	$ 14,732
NONCURRENT LIABILITIES	481,908	450,929	406,129	30,979	44,800
RESTRICTED NET POSITION	218,705	206,146	181,545	12,559	24,601
TOTAL LIABILITIES AND NET POSITION	$ 970,927	$ 978,327	$ 894,194	$ (7,400)	$ 84,133

Significant Changes in Liabilities

December 31, 2019 versus December 31, 2018

Total liabilities from December 31, 2018 to December 31, 2019 have decreased by $19,959 or 2.6 percent. The decrease in liabilities is primarily due to a decrease in unearned premium offset by an increase to the actuarial determined loss and loss adjustment expense liability. Loss and loss adjustment expense liability increased primarily due to additional reserves related to the paratransit, OCIP and excess loss programs and partially offset by a decrease in the LIRR stations program.

December 31, 2018 versus December 31, 2017

Total liabilities from December 31, 2017 to December 31, 2018 have increased by $59,532 or 8.4 percent. The increase in liabilities is primarily due to an increase in unearned premium and an increase to the actuarial determined loss and loss adjustment expense liability. Loss and loss adjustment expense liability increase primarily due to additional reserves related to the excess loss program.

Significant Changes in Net Position

December 31, 2019 versus December 31, 2018

In 2019, the restricted net position increase of $12,559 is comprised of operating revenues of $128,623 and non-operating income of $47,106, less operating expenses of $163,170.

December 31, 2018 versus December 31, 2017

In 2018, the restricted net position increase of $24,601 is comprised of operating revenues of $154,268 and non-operating income of $12,576, less operating expenses of $142,243.

Condensed Statements of Revenues, Expenses and Changes in Net Position

				Increase/(Decrease)	
(In thousands)	**2019**	**2018**	**2017**	**2019–2018**	**2018–2017**
OPERATING REVENUES	$ 128,623	$154,268	$133,826	$ (25,645)	$ 20,442
OPERATING EXPENSES	163,170	142,243	148,371	20,927	(6,128)
OPERATING INCOME/(LOSS)	(34,547)	12,025	(14,545)	(46,572)	26,570
NON-OPERATING INCOME / (LOSS)	47,106	12,576	18,157	34,530	(5,581)
CHANGE IN NET POSITION	12,559	24,601	3,612	(12,042)	20,989
RESTRICTED NET POSITION— Beginning of year	206,146	181,545	177,933	24,601	3,612
RESTRICTED NET POSITION— End of year	$ 218,705	$206,146	$181,545	$ 12,559	$ 24,601

Operating Revenues—The decrease of $25,645 or 16.6 percent, over the 2018 operating revenues is primarily due to a decreased in earned premium from the OCIP casualty programs compared to prior years. Earned premium for OCIP casualty programs are based on completion of the project construction.

The increase of $20,442 or 15.3 percent, over the 2017 operating revenues is primarily due to an increased in earned premium from the OCIP casualty programs compared to prior years. Earned premium for OCIP casualty programs are based on completion of the project construction.

Operating Expenses—Operating expenses between 2018 and 2019 increased by 14.7 percent, or $20,927. The increase was primarily due to an increase in loss and loss adjustment expenses primarily with the OCIP program.

Operating expenses between 2017 and 2018 decreased by 4.1 percent, or $6,128. The decrease was primarily due to a decrease in underwriting expenses primarily due to the end of payments for safety expenses for the OCIP Second Avenue Subway project.

Non-operating Income—Non-operating income between 2018 and 2019 increased by 274.6 percent, or $34,530. This is a result of an increase in income primarily from net unrealized gains on investments held by FMTAC.

Non-operating income between 2017 and 2018 decreased by 30.7 percent, or $5,581. This is a result of a decrease in income primarily from net unrealized gains on investments held by FMTAC partially offset an increase in realized investment income.

OVERALL FINANCIAL POSITION AND RESULTS OF OPERATIONS AND IMPORTANT ECONOMIC CONDITIONS

Results of Operations—Operating as a pure captive insurance company domiciled in the State of New York requires that all business plans and changes to said plans be reviewed and approved by the New York Insurance Department. As of December 31, 2019, all programs administered by FMTAC have been reviewed and approved.

As of December 31, 2019 and 2018, FMTAC received its annual loss reserve certification. The actuary determined that reserves recorded by FMTAC were adequate and no adjustments were deemed necessary.

U.S. Insurance Market-A.M. Best estimates the US industry had net catastrophe losses of $27.6 billion in 2019, down from $37 billion in 2018. Best expects pre-tax operating income to rebound to nearly $65 billion for 2019 driven by underwriting gains and moderately higher net investment income. Due to higher unrealized gains on the industry's equity holdings, they anticipate a $93 billion increase in policyholders' surplus to $858 billion.

CURRENTLY KNOWN FACTS, DECISIONS OR CONDITIONS

MTA Long Island Rail Road—New Hyde Park Collision. On October 8, 2016 while the MTA Long Island Rail Road was conducting track work east of the New Hyde Park Station on track placed out of service, a piece of track equipment derailed fouling live track and was struck by a train carrying passengers, causing the passenger train to derail. The majority of the personal injury claims appear to be soft-tissue, with a few fractures and Post Traumatic Stress Disorder claims. The most seriously injured claimant allegedly sustained two fractured legs, requiring five surgeries to date. The current outstanding reserves are $4.9 million; which is in excess of the Force $11 million policy limits.

MTA Long Island Rail Road - Atlantic Terminal Bumper Block Strike. An incident occurred on January 4, 2017 when an MTA Long Island Rail Road Far Rockaway Line train struck a bumper block in the Atlantic Terminal-Brooklyn Station. At this time, there does not appear to be any catastrophic injuries stemming from this incident with worst injuries seen so far are bone fractures and various trauma to the head/neck. If plaintiffs are successful in their claims against MTA Long Island Rail Road, damages could impact FMTAC and excess layers of insurance. The current outstanding reserves are $9.1 million; which is in excess of the Stations $11 million policy limits.

NYCTA Bicycle Case- On April 10, 2016, the Plaintiff rode his bicycle, through a cordoned off construction site beneath the elevated BMT line on Broadway in Bushwick, Brooklyn. The MTA New York City Transit Authority was replacing rotted cross ties and lowering them into a designated “drop zone.” Plaintiff was hit by a discarded tie that was being dropped to the ground per MTA New York City Transit Authority protocols. Plaintiff sustained severe and permanent injuries including paraplegia. A Kings County jury found the MTA New York City Transit Authority 100% liable and returned a $110 million verdict. The Authority has a reasonable chance of persuading the trial court to order a new trial. FMTAC writes an all agency excess liability policy for $50 million per occurrence in- excess of the MTA New York Transit Authority’s $11 million self-insured retention. If the case is not settled, litigation is likely to continue for at least 3 years. The FMTAC excess liability policy covering October 31, 2015-October 31, 2016 would be responsible for any settlement up to $40 million excess of the Agency retention of $11 million.

Terrorism Risk Insurance Act—Effective November 26, 2002, the Terrorism Risk Insurance Act (“TRIA”) was signed in to law. Effective December 22, 2006, TRIA was extended through December 31, 2007. On December 31, 2007, the U.S. Treasury Department issued Interim Guidance Concerning the Terrorism Risk Insurance Program Reauthorization Act of 2007 (“TRIPRA”) which has been extended through December 31, 2014. On January 12, 2015, TRIA was extended through December 31, 2020. In December 2019, TRIA was extended through to December 31, 2027. For additional information, please refer to the property section under Note 5.

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 initial impact of social distancing and Governor Cuomo’s PAUSE Executive Order resulted in a severe decline in the utilization of MTA services.
- Dramatic declines in MTA public transportation system ridership will have a negative impact on the Company’s revenue as some premiums are based on ridership, traffic on platforms and percentage of completion of construction projects. The steep fall in ridership volume, as well as the temporary suspension of certain construction projects reflects the initial impact of social distancing and subsequent State governmental orders limiting non-essential activities caused by the COVID-19 pandemic.
- Due to steep decrease in revenue of the MTA, there may be delays in the collection of premiums. The collectability of these premiums from the MTA still appear to be reasonably assured.
- The ultimate extent of the COVID-19 outbreak on the Company’s financial position cannot be reasonably estimated at this time.

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FIRST MUTUAL TRANSPORTATION ASSURANCE COMPANY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF NET POSITION
DECEMBER 31, 2019 AND 2018
(In thousands)

	2019	2018
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents (Note 3)	$ 104,175	$ 112,469
Investments (Note 4)	132,490	157,209
Funds held by reinsurer (Note 5)	7,513	14,399
Premiums receivable due from affiliates (Note 7)	70,833	147,197
Interest income receivable (Note 4)	3,779	3,418
Other assets	2	34
Total current assets	318,792	434,726
NONCURRENT ASSETS:		
Investments (Note 4)	638,935	526,690
Reinsurance recoverable	12,601	12,174
Incentive reward receivable	-	4,737
Owner Controlled Insurance Programs asset	599	-
Total noncurrent assets	652,135	543,601
TOTAL ASSETS	$ 970,927	$ 978,327
LIABILITIES AND NET POSITION		
CURRENT LIABILITIES:		
Unearned premiums	$ 202,295	$ 258,108
Ceded premium payable	1,508	6,332
Loss and loss adjustment expense liability (Note 6)	53,545	49,385
Losses payable	7,256	1,776
Due to affiliates	4,130	4,088
Accrued expenses	1,580	1,563
Total current liabilities	270,314	321,252
NONCURRENT LIABILITIES:		
Loss and loss adjustment expense liability (Note 6)	469,307	432,293
Reinsurance recoverable reserves (Note 6)	12,601	12,174
Owner Controlled Insurance Programs liability (Note 5)	-	6,462
Total noncurrent liabilities	481,908	450,929
Total liabilities	752,222	772,181
RESTRICTED NET POSITION	218,705	206,146
TOTAL LIABILITIES AND NET POSITION	$ 970,927	$ 978,327

See notes to financial statements.

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FIRST MUTUAL TRANSPORTATION ASSURANCE COMPANY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
YEARS ENDED DECEMBER 31, 2019 AND 2018
(In thousands)

	2019	2018
OPERATING REVENUES:		
Gross premiums written	$ 115,852	$ 208,131
Premiums ceded	(43,075)	(39,887)
Change in unearned premiums	55,846	(13,976)
Total operating revenues	128,623	154,268
OPERATING EXPENSES:		
Loss and loss adjustment	146,434	126,929
Underwriting	7,704	6,084
General and administrative	9,032	9,230
Total operating expenses	163,170	142,243
OPERATING (LOSS)/INCOME	(34,547)	12,025
NON-OPERATING INCOME:		
Net investment income	47,106	12,576
Total non-operating income	47,106	12,576
CHANGE IN NET POSITION	12,559	24,601
RESTRICTED NET POSITION—Beginning of year	206,146	181,545
RESTRICTED NET POSITION—End of year	$ 218,705	$ 206,146

See notes to financial statements.

FIRST MUTUAL TRANSPORTATION ASSURANCE COMPANY
(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2019 AND 2018
(In thousands)

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES:		
Premiums and other receipts	$ 144,349	$ 206,912
Other operating expenses	(111,862)	(94,354)
Net cash provided by operating activities	32,487	112,558
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of investments	(563,500)	(668,051)
Sales and maturities of investments	501,864	498,767
Earnings on investments	20,855	24,300
Net cash used in by investing activities	(40,781)	(144,984)
NET DECREASE IN CASH AND CASH EQUIVALENTS	(8,294)	(32,426)
CASH AND CASH EQUIVALENTS—Beginning of year	112,469	144,895
CASH AND CASH EQUIVALENTS—End of year	$ 104,175	$ 112,469
RECONCILIATION OF OPERATING (LOSS)/INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:		
Operating (loss)/income	$ (34,547)	$ 12,025
Adjustments to reconcile to net cash used in operating activities:		
Net (decrease)/increase in accounts payable, accrued expenses and other liabilities	(19,959)	59,532
Net decrease in receivables	86,993	41,001
Net cash provided by operating activities	$ 32,487	$ 112,558

See notes to financial statements.

1. BASIS OF PRESENTATION

Reporting Entity—First Mutual Transportation Assurance Company (the "Company"), a component unit of the Metropolitan Transportation Authority ("MTA"), was incorporated under the laws of the State of New York (the "State") as a pure captive insurance company on December 5, 1997, and commenced operations on that date. The Company was established to maximize the flexibility and effectiveness of the MTA's insurance program and is governed by a Board of Directors consisting of members of the MTA. The Company's financial position and results of operations are included in the MTA's Comprehensive Annual Financial Report. The MTA is a component unit of the State of New York and is included in the State of New York's Comprehensive Annual Financial Report of the Comptroller as a public benefit corporation.

FMTAC is operationally and legally independent of the MTA. FMTAC enjoys certain rights typically associated with separate legal status. However, FMTAC is included in the MTA's consolidated financial statements as a blended component unit because of the MTA's financial accountability, and FMTAC is under the direction of the MTA Board (a reference to "MTA Board" means the board of MTA and/or the boards of the FMTAC and other MTA component units 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 FMTAC in its consolidated financial statements.

The New York captive insurance statute requires a $250 minimum unimpaired paid-in-capital and surplus be maintained by a pure captive insurance company.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

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

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

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

Cash and Cash Equivalents—includes highly liquid investments with a maturity of three months or less when purchased. Cash equivalents are stated at amortized cost, which approximates fair value.

Investments—Investments are recorded on the statement of net position at fair value, which is the amount at which a financial instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. All investment income, including changes in the fair value of investments, is reported as revenue (as either net investment income or unrealized gain (loss) on investments) on the statement of revenues, expenses and changes in net position.

Net Position—Net position is restricted for activities related to the payment of insurance claims.

Operating Revenues

Premiums—Earned premiums are determined over the term of their related policies, which approximates one year, or for certain Owner Controlled Insurance Programs ("OCIP"), as a percent of completed construction costs. Accordingly, an unearned premium liability is established for the portion of premiums written applicable to the unexpired period of policies in force or uncompleted construction projects. The Company does not directly pay premium taxes in accordance with its relationship with New York State.

Operating Expenses

Loss and Loss Adjustment Expenses—Loss and loss adjustment expenses are established for amounts estimated to settle incurred losses on individual cases and estimates for losses incurred but not reported.

Loss and loss adjustment expenses are based on loss estimates for individual claims and actuarial estimates and, therefore, the ultimate liabilities may vary from such estimates. Any adjustments to these estimates, which could be significant, will be reflected in income in the period in which the estimates are changed or payments are made.

Non-Operating Revenues and Expenses—Investment income and unrealized gain (loss) on investments account for FMTAC's non-operating revenues and expenses.

Income Taxes—The Company is not subject to income taxes arising on profits since it is a component unit of the MTA. The MTA and its subsidiaries are exempt from income taxes.

3. CASH AND CASH EQUIVALENTS

At December 31, 2019 and 2018, cash and cash equivalents consisted of (in thousands):

	2019		2018	
	Carrying Amount	Bank Balance	Carrying Amount	Bank Balance
Insured deposits	$ 250	$ 250	$ 250	$ 250
Loss escrows	6,829	6,829	6,329	6,329
Uninsured deposits	97,096	97,096	105,890	105,890
	$ 104,175	$ 104,175	$ 112,469	$ 112,469

The Company is required to set aside funds in escrow accounts that are used to settle claims on behalf of the Company. The account balances of the loss escrow are $6,829 and $6,329 as of December 31, 2019 and 2018, respectively.

All other funds are invested by the Company as described in Note 4.

4. INVESTMENTS

The fair value and cost basis of investments consist of the following at December 31, 2019 and 2018 (in thousands):

	2019		2018	
	Fair Value	Cost	Fair Value	Cost
Funds for claim payments	$ 407,346	$ 393,437	$ 328,341	$ 328,942
Security trust funds	364,079	356,145	344,087	344,247
Funds for letter of credit	-	-	11,471	11,307
	$ 771,425	$ 749,582	$ 683,899	$ 684,496

All investments are registered and held by the Company or its agent in the Company's name.

The Company makes funds available to claims processors to allow for adequate funding for submitted claims. The funds, in the above table, are invested primarily in fixed income investments such as U.S. Government Bonds. All investments outlined above are restricted per the Statement of Net Position and are to be used to pay claims or pay administration expenses of the Company or as collateral for letter of credit obligations.

All funds of the Company not held as cash and cash equivalents are invested by the Company in accordance with the Company's investment guidelines. Investments may be further limited by individual security trust agreements. The Company's investment policies comply with the New York State Comptroller's guidelines for such policies. Those policies permit investments in fixed income securities that are investment grade or higher and the policy also allows for the investment in equities.

All investments are recorded on the Statements of Net Position at fair value and all investment income, including changes in the fair value of investments, is reported as revenue/(expense) on the Statements of Revenues, Expenses and Changes in Net Position. Fair values have been determined using quoted market values at December 31, 2019 and 2018.

The yield to maturity rate was 2.02% for the year ended December 31, 2019, and 3.05% for the year ended December 31, 2018. For the year ended December 31, 2019, the change in net unrealized gain/loss on investments was an increase of $22,441. For the year ended December 31, 2018, the change in net unrealized gain/loss on investments was a decrease of $12,775.

Interest Rate Risk and Investments at Fair Value

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 a bond price's sensitivity to 100 basis point change in interest rates. Duration is expressed as a number of years.

The Company 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 Company's investments. 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. Listed below are the recurring fair value measurements as of December 31, 2019 and 2018. Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets issued by pricing vendors for those securities.

DRAFT

(In thousands)	2019		2019			
		Duration	Fair Value Measurements			
Investment Type	Fair Value	(years)	Total	Level 1	Level 2	Level 3
Treasury [1]	$ 335,057	4.18	$ 335,057	$ -	$ 335,057	$ -
Agency [2]	124,880	5.98	124,880	-	124,880	-
Asset backed securities	45,907	1.95	45,907	-	45,907	-
Commercial mortgage backed securities	110,704	3.85	110,704	-	110,704	-
Foreign bonds	19,166	6.25	19,166	19,166	-	-
Corporate bonds	139,490	4.56	139,490	139,490	-	-
Total	775,204		775,204	$ 158,656	$ 616,548	$ -
Less accrued interest	(3,779)		(3,779)			
Total investments	$ 771,425		$ 771,425			

Including but not limited to:
[1] U.S. Treasury Notes
[2] Fannie Mae, Freddie Mac, Federal Home Loan Bank, Federal Home Loan Mortgage Corporation

(In thousands)	2018		2018			
		Duration	Fair Value Measurements			
Investment Type	Fair Value	(years)	Total	Level 1	Level 2	Level 3
Treasury [1]	$ 306,032	2.88	$ 306,032	$ -	$ 306,032	$ -
Agency [2]	105,233	5.90	105,233	-	105,233	-
Asset backed securities	45,302	1.94	45,302	-	45,302	-
Commercial mortgage backed securities	81,056	5.55	81,056	-	81,056	-
Foreign bonds	15,768	6.20	15,768	15,768	-	-
Corporate bonds	133,926	4.43	133,926	133,926	-	-
Total	687,317		687,317	$ 149,694	$ 537,623	$ -
Less accrued interest	(3,418)		(3,418)			
Total investments	$ 683,899		$ 683,899			

Including but not limited to:
[1] U.S. Treasury Notes
[2] Fannie Mae, Freddie Mac, Federal Home Loan Bank, Federal Home Loan Mortgage Corporation

Credit Risk—At December 31, 2019, the following credit quality rating has been assigned by a nationally recognized rating organization (in thousands):

Quality Rating	Fair Value	Percentage of Fixed Income Portfolio
AAA	$ 257,682	33.2
AA	33,246	4.3
A	88,234	11.4
BBB	41,392	5.3
Not rated	19,593	2.5
Credit risk debt securities	440,147	56.7
U.S. Government bonds	335,057	43.2
Total fixed income securities	775,204	100 %
Less accrued interest	(3,779)	
Total investments	$ 771,425	

Credit Risk—At December 31, 2018, the following credit quality rating has been assigned by a nationally recognized rating organization (in thousands):

Quality Rating	Fair Value	Percentage of Fixed Income Portfolio
AAA	$ 224,702	32.7 %
AA	31,381	4.6
A	75,953	11.1
BBB	38,442	5.6
BB	239	-
Not rated	10,568	1.5
Credit risk debt securities	381,285	55.5
U.S. Government bonds	306,032	44.5
Total fixed income securities	687,317	100 %
Less accrued interest	(3,418)	
Total investments	$ 683,899	

5. INSURANCE PROGRAMS

Property Program—Effective May 1, 2019, FMTAC renewed the all-agency property insurance program. For the annual period commencing May 1, FMTAC directly insures property damage claims of the other MTA Group entities in excess of a $25,000 per occurrence deductible, subject to an annual

$75,000 aggregate as well as certain exceptions summarized below. The total program is $575,000 per occurrence covering property of the related entities collectively. FMTAC is reinsured in the domestic, Asian, London, European, and Bermuda marketplaces for this coverage. Losses occurring after the annual aggregate is exceeded are subject to a deductible of $7,500 per occurrence. The property insurance policy provides replacement cost coverage for all risks (including Earthquake, Flood and Wind) of direct physical loss or damage to all real and personal property, with minor exceptions. The policy also provides extra expense and business interruption coverage.

FMTAC's property insurance program has been expanded to include a further layer of $125,000 of fully collateralized earthquake coverage for an event of a certain index value and for storm surge coverage for losses from storm surges that surpass specified trigger levels in the New York Harbor or Long Island Sound and are associated with named storms that occur at any point in the three year period from May 23, 2017 to April 30, 2020. The expanded protection is reinsured by MetroCat Re Ltd. 2017-1, a Bermuda special purpose insurer independent from the MTA and formed to provide FMTAC with capital markets based property reinsurance. The MetroCat Re Ltd. 2017-1 reinsurance policy is fully collateralized by a Regulation 114 trust invested in U.S. Treasury Money Market Funds. The additional coverage provided is parametric and available for storm surge losses resulting from a storm that causes water levels that reach the specified index values, and also for an earthquake event of a certain index.

Terrorism Program—Effective May 1, 2016, FMTAC renewed the terrorism program. Commencing May 1, FMTAC directly insures certified terrorism claims of the other MTA Group entities in excess of a $25,000 per occurrence self-insured retention, subject to an annual $75,000 aggregate as well as certain exceptions summarized below. The total program is $1,075,000 per occurrence covering property of the related entities collectively. FMTAC is reinsured in the domestic, London, and European marketplaces for this coverage. Losses occurring after the retention aggregate is exceeded are subject to a deductible of $7,500 per occurrence. The direct and reinsurance policies are effective from May 1, 2016 to December 31, 2020.

With respect to acts of terrorism, FMTAC provides direct coverage that is reinsured by the United States Government for 81% of "certified" losses in 2019, as covered by the Terrorism Risk Insurance Act ("TRIA") of 2015 (originally introduced in 2002). Under the 2015 extension, terrorism acts sponsored by both foreign and domestic organizations are covered. The remaining 19% of MTA Group losses arising from an act of terrorism would be covered under the additional terrorism policy described below. Additionally, no federal compensation will be paid unless the aggregate industry insured losses exceed $180,000 ("trigger") for 2019. In December 2019, the United States government's reinsurance of TRIA was extended until December 31, 2027.

To supplement the reinsurance to FMTAC through the 2015 Terrorism Risk Insurance Program Reauthorization Act ("TRIPRA") program, the MTA obtained an additional commercial reinsurance policy with various reinsurance carriers in the domestic, London and European marketplaces. That policy provides coverage for (1) 19% of any "certified" act of terrorism in 2019—up to a maximum recovery of $204,250 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 19% "certified" acts of terrorism insurance in 2019 or (3) 100% of any "certified" terrorism loss which exceeds $5,000 and less than the $180,000 TRIPRA trigger—up to a maximum recovery of $180,000 for any occurrence and in the annual aggregate.

Excess Loss Fund ("ELF")—On October 31, 2003, the Company assumed the existing ELF program on both a retrospective and prospective basis. 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. The coverage limit will remain $50,000 per occurrence or the proceeds of the program whichever is less. On a prospective basis, effective October 31, 2003, the Company issued insurance policies indemnifying the MTA, its subsidiaries and affiliates above their specifically assigned Self-Insured Retention with a limit of $50,000 per occurrence with $50,000 annual aggregate. The balance of the ELF, $77,000 was transferred to and invested by the Company in order to secure any claims assumed from the ELF, as well as to capitalize the prospective programs and insure current and future claims. FMTAC charges appropriate annual premiums based on loss experience and exposure analysis to maintain the fiscal viability of the program. Effective October 31, 2019, FMTAC also provides an All-Agency Excess Liability Policy to the MTA and its subsidiaries and affiliates with the limits: i) $75,000 (75%) of $100,000 excess $100,000 and ii) $95,000 (95%) of $100,000 excess $200,000 and iii) $100,000 (100%) of $100,000 excess $300,000. The limits are fully reinsured in the domestic, London, European and Bermuda marketplaces. The limits also exclude claims arising from acts of terrorism.

Stations and Force Liability—Effective December 15, 2019, the Company renewed its direct insurance for the first $11,000 per occurrence losses for Long Island Rail Road Company and Metro-North Commuter Railroad Company with no aggregate stop loss protection.

All Agency Protective Liability—The Company issued a policy to cover MTA's All Agency Protective Liability Program ("AAPL"), which is designed to protect the MTA and its agencies against the potential liability arising from independent contractors working on capital and noncapital projects. Effective June 1, 2019, the net retention to the Company is $2,000. The Company also issued a policy for $9,000 excess of $2,000 per occurrence with an $18,000 annual aggregate.

Paratransit—On March 1, 2019, the MTA renewed its one-year auto liability policy with Travelers (Discover Re). Effective March 1, 2019, the Company renewed, with the MTA, a self-insured retention reimbursement policy for the auto liability on the New York City Transit ("NYCT") Paratransit operations. The Company is responsible for the first $1,000 per occurrence of every claim covered by the MTA/Travelers policy.

Non-Revenue—Effective March 1, 2019, the Company renewed, with the MTA, a deductible reimbursement policy for the auto liability of MTA's non-revenue fleet. The Company is responsible for the first $500 per occurrence of every claim, excluding Allocated Loss Adjusted Expenses ("ALAE"). Under a separate reinsurance agreement with Travelers, effective March 1, 2019, the Company assumed 100% of the Allocated Loss Adjusted Expenses.

Owner-Controlled Insurance Programs (OCIP)—The MTA purchases Owner Controlled Insurance Programs under which coverage is provided on a group basis for certain agency projects. The Company provides the collateral required by the OCIP insurers to cover deductible amounts. The Company records in the OCIP liability account the amount of principal paid by the MTA to the program. The interest earned is not recognized in the statements of revenues, expenses, and changes in net position. Rather, the amounts are recorded as Incentive Award Payable as the Company may have to make payments to contractors with favorable loss experience.

OCIP liability consists of the following at December 31, 2019 and 2018 (in thousands):

	2019	2018
NYCT structures lines	$ 532	$ 532
LIRR/MNCR 2000–2004 Capital Improvement Program	(2,461)	(1,844)
NYCT 2000–2004 line structures/shops, yards and depots Capital Improvements Program	(1,690)	1,591
NYCT 2000–2004 stations and escalators/elevators Capital Improvements Program	(647)	1,424
LIRR/MNR 2005–2009 Capital Improvement Program	(21)	811
CCC Second Ave. Subway	3,688	3,948
OCIP (asset)/liability	$ (599)	$ 6,462

The activity of all funds held by the OCIP reinsurer consists of the following for 2019 and 2018 (in thousands):

	2019	2018
Funds held by OCIP insurers—beginning of year	$ 14,399	$ 12,719
Interest income	174	895
Reimbursement to the Company for Safety and Loss Control	(6,554)	(6,903)
Claims payments	(506)	7,688
Funds held by OCIP reinsurer	$ 7,513	$ 14,399

OCIPs Covering 2000–2004 Capital Program—The Company entered into three agreements with AIG covering portions of the 2000–2004 MTA Capital Program effective October 1, 2000: (1) Long Island Rail Road ("LIRR")/Metro-North Commuter Railroad Company ("MNCR") 2000–2004 capital improvement program; (2) NYCT 2000–2004 lines structures/shops, yards and depots capital improvement program; and (3) NYCT 2000–2004 stations and escalators/elevators capital improvement program. The combined collateral requirements are $86,094, which consist of $10,385 for the LIRR/MNCR OCIP, $52,709 for the NYCT 2000–2004 lines structures/shops, yards and depots capital improvement program and $23,000 for the NYCT 2000–2004 stations and escalators/elevators capital improvement program. The collateral posted by the Company to secure its reimbursement of the insurer's payments is invested by the insurer with interest returning to the Company at a guaranteed annual rate of return. The Company earned $28 and $635 during the years ended December 31, 2019 and 2018, respectively. The interest earned will be used to make the Contractor Safety Incentive program payments to contractors with favorable loss experience. Any monies not used to pay losses or utilized for the Contractor Safety Incentive Program will be returned to the agencies at the end of the OCIPs. In 2019, there were withdrawals from the Company of $5,721 and claim payments of $248.

OCIP-LIRR/MNCR 2005–2009 Capital Improvement Projects—Effective June 1, 2006, the Company entered into a new OCIP insurance program for LIRR/MNCR for capital projects in the 2005–2009 MTA Capital Program. In 2019 and 2018, respectively, the Company had a net claim recovery of $0 and $1,183. Like the other programs, the interest income generated from the funds being held will be used to pay Contractor Safety Incentive program payments. The Company has earned $7 and $32 in interest income during the years ended December 31, 2019 and 2018, respectively. There were withdrawals from the company in 2019 of $833.

Second Avenue Subway Project—Effective January 31, 2007, the Company entered into an OCIP program for the $2,500,000 Second Avenue Subway Project. This is a multi-year agreement with AIG covering Workers' Compensation and General Liability for the Third-Party contractors, MTA and all its subsidiaries up to $500,000. This OCIP, like the others, requires the Company to post collateral for all losses related to workers' injuries. In 2019 and 2018, $5,415 and $5,534 has been set aside to cover this exposure, respectively. During 2019 and 2018, the Company earned $139 and $228 in interest with claim payment of $258 and net recovery of $1,382 on this OCIP, respectively.

East Side Access Project ("ESA")—Effective April 1, 1999, the Company entered into an OCIP program for the East Side Access Project. It was a multi-year agreement with Liberty Mutual, the insurer, to insure third party contractors and the MTA and all its subsidiaries up to $300,000 for Workers' Compensation and General Liability. The insurer required the Company to hold the collateral and loss funding for the first $500 per occurrence. On April 1, 2016, this coverage was renewed to April 1, 2021. The Company will now hold the collateral and loss funding for the first $750 per occurrence resulting from Workers' Compensation and the first $1,900 from General Liability.

East Side Access Project – Excess General Liability – Effective August 1, 2018, the company entered into program to insure $10,000 per occurrence and aggregate of General Liability coverage in excess of $2,000 for claims related to the East Side Access Project. The coverage expires on April 1, 2021

NYCT 2005–2009 Capital Improvements Projects—Effective August 1, 2006, the Company entered into a multi-year agreement with Liberty Mutual and the MTA whereby the Company will hold the collateral and loss funding for the first $500 per occurrence resulting from Workers' Compensation and General Liability losses during the NYCT's 2005–2009 Capital Improvement Projects.

MTA 2012–2014 Combined Capital Construction Program—Effective October 1, 2012, the Company entered into a multi-year agreement with ACE American Insurance Company and the MTA whereby the Company will hold the collateral and loss funding for the first $750 per occurrence resulting from Workers' Compensation and the first $1,500 from General Liability losses during the MTA 2012–2014 Combined Capital Construction Program.

MTA 2015–2019 Combined Capital Construction Program—Effective June 30, 2017, the Company entered into a multi-year agreement with Starr Indemnity & Liability Company and the MTA whereby the Company will hold the collateral and loss funding for the first $750 per occurrence resulting from Workers' Compensation and the first $1,500 from General Liability losses during the MTA 2015–2019 Combined Capital Construction Program.

MTA LIRR 3rd Track Program – Effective January 1, 2018, the Company entered into a multi-year agreement with Starr Indemnity & Liability Company and the MTA whereby the Company will hold the collateral and loss funding for the first $750 per occurrence resulting from Workers' Compensation and the first $1,500 from General Liability losses until January 1, 2024.

Builder's Risk—Effective October 1, 2001, the Company renegotiated the terms and conditions of the reinsurance coverage it purchased from Zurich for the Builder's Risk Insurance Program ("BR") provided to cover the following 2000–2004 capital program OCIPs:

1. Long Island Rail Road/Metro-North Commuter Railroad Capital Improvement Program;
2. NYCT's Lines Structures/Shops, Yards & Depots Capital Improvement Program, and
3. NYCT's Stations & Elevators Capital Improvement Program

The Company's policy and reinsurance agreements provide the capital projects listed above with limits of $50,000 in the aggregate. In consideration of $950 in net retained premium, the Company issues a deductible reimbursement policy with limits of $75 excess of $25 contractor deductible.

Similar to the above BR program, effective July 31, 2006, the Company entered into a new BR program for the following 2005–2009 capital program OCIPs:

1. Long Island Rail Road/Metro-North Commuter Railroad Capital Improvement Program and
2. NYCT's 2005–2009 Capital Improvement Program

The Company's policy and reinsurance agreements from Zurich provide the capital projects listed above with limits of $50,000 in the aggregate. In consideration of $7,500 in net retained premium, the Company issues a deductible reimbursement policy with limits of $475 excess of $25 contractor deductible.

In 2005, the Company received approval to expand its Builder's Risk Insurance Program to directly insure the MTA and its agencies for property claims while various capital improvement projects are under construction. The policy will cover selected capital improvement projects and was bound June 1, 2005, with limits of $300,000 per occurrence subject to the $100,000 self-insured retention. In consideration of a ceded premium of $12,750, the Company purchased reinsurance for the East Side Access Project from Zurich limiting its exposure to the $100,000 per occurrence self-insured retention. In 2007, this limit was bought down to $50,000 for an additional premium of $5,053. In 2014, this coverage was extended to May 31, 2021, for an additional ceded premium of $18,106. The Company also purchased reinsurance for the Second Avenue Subway Project. In consideration of ceded premium of $13,362, reinsurance covering losses up to $500,000 excess of $50,000 was purchased from Zurich. The reinsurance purchased by the Company will include an aggregate stop loss provision, whereby the Company will limit its total liability to $125,000 in the aggregate.

Similar to the above BR programs, effective November 1, 2012, the Company entered into a new BR program for various MTA 2012–2014 combined capital program OCIPs. The Company issues a BR policy, to the MTA, with limits of $50,000 per occurrence with a $25 contractor deductible. The Company also purchased reinsurance from ACE with limits of $50,000 per occurrence with at $250 deductible.

Effective June 30, 2017, the Company wrote a builders risk deductible reimbursement policy with the MTA for the 2015-2019 Combined Capital Construction Program with limits of $250 per occurrence, $1,000 per occurrence for peril of Flood with a $25 contractor deductible per claim. The policy will expire on June 30, 2023.

On January 1, 2018, the Company wrote a builders risk deductible reimbursement policy with the MTA for the LIRR 3rd Track project with limits of $250 per occurrence with a $25 contractor deductible per claim. The policy will expire on January 1, 2024.

6. LOSS AND LOSS ADJUSTMENT EXPENSES AND REINSURANCE

The following schedule presents changes in the loss and loss adjustment expense liabilities during 2019 and 2018 (in thousands):

	2019	2018
Loss and loss adjustment expenses liability—beginning of year	$ 493,852	$ 444,947
Loss reinsurance recoverable on unpaid losses and loss expenses	(12,174)	(12,245)
Net balance—beginning of year	481,678	432,702
Loss and loss adjustment expenses	146,434	126,929
Payments attributable to insured events of the current year	(105,260)	(77,953)
Net balance—end of year	522,852	481,678
Plus reinsurance recoverable on unpaid losses and loss expenses	12,601	12,174
Loss and loss adjustment expenses liability—end of year	535,453	493,852
Less current portion	53,545	49,385
Long-term liability	$ 481,908	$ 444,467

7. RELATED PARTY TRANSACTIONS

The Company provides insurance coverage for the MTA and its component units. The premium revenue from related parties during the period and receivable for the years ended December 31, 2019 and 2018, was as follows (in thousands):

	2019		2018	
	Receivable	Earned	Receivable	Earned
LIRR	$ 10,446	$ 16,859	$ 12,314	$ 15,205
MNCR	3,860	7,454	5,358	8,855
MTA	56,527	104,310	129,525	130,208
	$ 70,833	$ 128,623	$ 147,197	$ 154,268

Included in General and Administrative expenses for the years ended December 31, 2019 and 2018, respectively, are amounts the MTA charged of $8,289 and $8,502, respectively, to FMTAC for risk management services provided to the Company of which $4,130 and $4,088 remain as a liability at December 31, 2019 and 2018, respectively.

8. NYCTA BICYCLE CASE

On April 10, 2016, the Plaintiff rode his bicycle, through a cordoned off construction site beneath the elevated BMT line on Broadway in Bushwick, Brooklyn. The MTA New York City Transit Authority was replacing rotted cross ties and lowering them into a designated “drop zone.” Plaintiff was hit by a discarded tie that was being dropped to the ground per MTA New York City Transit Authority protocols. Plaintiff sustained severe and permanent injuries including paraplegia. A Kings County jury found the MTA New York City Transit Authority 100% liable and returned a $110 million verdict. The Authority has a reasonable chance of persuading the trial court to order a new trial. FMTAC writes an all agency excess liability policy for $50 million per occurrence in- excess of the MTA New York Transit Authority's $11 million self-insured retention. If the case is not settled, litigation is likely to continue for at least 3 years. The FMTAC excess liability policy covering October 31, 2015-October 31, 2016 would be responsible for any settlement up to $40 million excess of the Agency retention of $11 million.

9. SUBSEQUENT EVENTS

FMTAC evaluated subsequent events from January 1, 2020 through __________, 2020, the date the financial statements were issued. FMTAC concluded that no subsequent events have occurred that would require recognition or disclosure in the financial statements.

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 initial impact of social distancing and Governor Cuomo's PAUSE Executive Order resulted in a severe decline in the utilization of MTA services.
- Dramatic declines in MTA public transportation system ridership will have a negative impact on the Company's revenue as some premiums are based on ridership, traffic on platforms and percentage of completion of construction projects. The steep fall in ridership volume, as well as the temporary suspension of certain construction projects reflects the initial impact of social distancing and subsequent State governmental orders limiting non-essential activities caused by the COVID-19 pandemic.
- Due to steep decrease in revenue of the MTA, there may be delays in the collection of premiums. The collectability of these premiums from the MTA still appear to be reasonably assured.
- The ultimate extent of the COVID-19 outbreak on the Company's financial position cannot be reasonably estimated at this time.

* * * * * *

Triborough Bridge and Tunnel Authority

(Component Unit of the Metropolitan Transportation Authority)

Financial Statements as of and for the Years Ended December 31, 2019 and 2018, Required Supplementary Information, and Independent Auditors' Report

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

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INDEPENDENT AUDITORS' REPORT

To the Members of the Board of
Metropolitan Transportation Authority

Report on the Financial Statements

We have audited the accompanying statements of net position of the Triborough Bridge and Tunnel Authority (the "Authority"), a public benefit corporation which is a component unit of the Metropolitan Transportation Authority ("MTA"), as of December 31, 2019 and 2018, and the related statements of revenues, expenses and changes in net position and cash flows for the years then ended, and the related notes to the financial statements, which collectively comprise the Authority's financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the net position of the Authority as of December 31, 2019 and 2018, and the respective changes in net position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

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

___________, 2020

OVERVIEW OF THE FINANCIAL STATEMENTS

Introduction

The following is a narrative overview and analysis of the financial activities of Triborough Bridge and Tunnel Authority ("MTA Bridges and Tunnels" or "Authority") for the years ended December 31, 2019 and 2018. This discussion and analysis is intended to serve as an introduction to MTA Bridges and Tunnels' financial statements which have the following components: (1) Management's Discussion and Analysis ("MD&A"), (2) Financial Statements (3) Notes to the Financial Statements, and (4) Required Supplemental Information.

Management's Discussion and Analysis

This MD&A provides an assessment of how MTA Bridges and Tunnels' position has improved or deteriorated and identifies the factors that, in management's view, significantly affected MTA Bridges and Tunnels' overall financial position. It may contain opinions, assumptions, or conclusions by MTA Bridges and Tunnels' management that should not be considered a replacement for and must be read in conjunction with the financial statements.

The Financial Statements Include

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

The Statements of Revenues, Expenses and Changes in Net Position show how MTA Bridges and Tunnels' net position changed during each year and accounts for all the current and prior year's revenues and expenses, measure the success of MTA Bridges and Tunnels' operations over the twelve months and can be used to determine how MTA Bridges and Tunnels has funded its costs.

The Statements of Cash Flows provide information about MTA Bridges and Tunnels' cash receipts, cash payments, and net changes in cash resulting from operations, noncapital financing, capital and related financing, and investing activities.

The Notes to the Financial Statements Provide

Information that is essential to understanding the financial statements, such as MTA Bridges and Tunnels' basis of presentation, and significant accounting policies, details of cash and investments, capital assets, employee benefits, long-term debt, lease transactions, future commitments and contingencies, and subsequent events of MTA Bridges and Tunnels.

The notes to the financial statements also describe any other events or developing situations that could materially affect MTA Bridges and Tunnels' 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, related ratios and actuarial assumptions used to calculate the net pension liability and net OPEB liability.

FINANCIAL REPORTING ENTITY

Triborough Bridge and Tunnel Authority is a public benefit corporation, separate and apart from the State of New York, without any power of taxation. Triborough Bridge and Tunnel Authority is empowered to operate and maintain nine toll bridges and tunnels and the Battery-Parking Garage, all located in New York City. The board members of the Metropolitan Transportation Authority ("MTA") also serve as the Board of Triborough Bridge and Tunnel Authority. Triborough Bridge and Tunnel Authority operates under the name of MTA Bridges and Tunnels and is a component unit of the MTA. The MTA is a component unit of the State of New York.

MTA Bridges and Tunnels' operations and capital costs (debt obligations) for its bridges and tunnels are paid by the revenues it generates from its facilities. MTA Bridges and Tunnels' surplus amounts are used to fund transit and commuter operations and finance capital projects for the transit and commuter systems operated by other affiliates and subsidiaries of the MTA.

CONDENSED FINANCIAL INFORMATION

The following sections will discuss the significant changes in MTA Bridges and Tunnels' financial position for the years ended December 2019 and 2018. Additionally, an examination 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, summaries of the financial statements and the various exhibits presented are in conformity with MTA Bridges and Tunnels' financial statements, which are presented in accordance with accounting principles generally accepted in the United States of America.

(In thousands)

ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	As of December 31, 2019	2018	2017	Increase/(Decrease) 2019 - 2018	2018 - 2017
Capital Assets - Net	$ 6,660,639	$ 6,366,386	$ 6,005,000	$ 294,253	$ 361,386
Other Assets	1,444,763	1,194,244	1,109,935	250,519	84,309
Deferred Outflows of Resources	527,388	487,485	501,979	39,903	(14,494)
Total Assets and Deferred Outflows of Resources	$ 8,632,789	$ 8,048,115	$ 7,616,914	$ 584,674	$ 431,201

Significant Changes in Assets and Deferred Outflows of Resources:

December 31, 2019 versus 2018:

Total assets and deferred outflows of resources increased by $584,674 for the year ended December 31, 2019.

Capital assets, net increased $294,253 for the year ended December 31, 2019. This increase was primarily due to additions to under construction work of $132,518, property road and equipment of $120,581, roadway of $90,142, primary structures of $72,145, open road tolling systems and equipment of $31,952, and other of $13,826. These increases in assets were offset by decreases in toll equipment and other due to retirement of assets of $206 and $286, respectively, and accumulated depreciation of $166,419. See Capital Asset footnote for further details.

Other assets increased by $250,519for the year ended December 31, 2019. The increase was primarily due to higher cash of $139,053, mainly due to the internet tax revenue of $85,201and the mansion tax revenue received in the Central Business Tolling lockbox account of $53,852. There were also higher restricted short-term investments of $124,258 and higher accounts receivable of $56,511, mainly from Tolls-By-Mail and E-ZPass violation receivables and an additional $15,781 due to MTA relating to the mansion tax. These increases were offset by higher allowance for doubtful accounts of $69,798.

There was an increase in deferred outflows of resources of $39,903. This was due to an increase in the deferred outflows related to pension of $22,809 resulting from changes in the proportionate share of the net pension liability of New York City Employees Retirement System. There was also an increase in the change in fair market value of derivative instruments of $33,706 and an increase in deferred outflows of resources related to Other Post-Employment Benefits of $4,204. The increase was offset by a decrease in the unamortized loss on debt refunding of $20,816.

December 31, 2018 versus 2017:

Total assets and deferred outflows of resources increased by $431,201 for the year ended December 31, 2018.

Capital assets, net increased $361,386 for the year ended December 31, 2018. This increase was primarily due to additions to primary structures of $550,019, property road and equipment of $325,932, roadway of $304,622, open road tolling systems and equipment of $63,501 buildings and additions of $34,549 and other of $5,130. These increases in assets were offset by decreases in under construction work of $774,105 and accumulated depreciation of $148,262. See Capital Asset footnote for further details.

Other assets increased by $84,309 for the year ended December 31, 2018. The increase was primarily due to higher restricted short-term investment funds with MTA of $272,867 and higher accounts receivable of $94,545, mainly from tolls by mail. There was also an increase in unrestricted short-term investments of $51,059. The increases were offset by a decrease in contribution from MTA Headquarters of $163,188 relating to a prior year portion of debt service savings and a decrease of $87,112 for short-term restricted investments, mainly from lower bond proceeds and lower debt service funds. There was also a decrease of $14,448 for unrestricted short-term investment funds with MTA due to drawdowns of investments in the NYCERS GASB 45 fund and GASB employee health contribution fund and an increase of $71,264 for allowance for doubtful accounts, attributable to higher toll video receivables.

There was a decrease in deferred outflows of resources of $14,494. This was due to a decrease in the deferred outflows related to pension of $29,163 resulting from changes in the proportionate share of the net pension liability of NYCERS. There was also a decrease in the change in fair market value of derivative instruments of $25,487, and a decrease in the unamortized loss on debt refunding of $20,590. The decrease was offset by an increase in OPEB related Deferred Outflow of $60,746, which was a result of change in accounting under GASB 75.

(In thousands)

	As of December 31,			Increase/(Decrease)	
TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES	**2019**	**2018**	**2017**	**2019 - 2018**	**2018 - 2017**
Current Liabilities	$ 1,301,315	$ 1,325,463	$ 1,527,864	$ (24,148)	$ (202,401)
Noncurrent Liabilities	10,338,112	10,272,175	10,110,598	65,937	161,577
Deferred Inflow of Resources	109,410	51,681	20,754	57,729	30,927
TOTAL LIABILITIES & DEFERRED INFLOWS OF RESOURCES	$ 11,748,837	$ 11,649,319	$ 11,659,216	$ 99,518	$ (9,897)

Significant Changes in Liabilities and Deferred Inflows of Resources:

December 31, 2019 versus 2018:

Total liabilities and deferred inflows of resources increased by $99,518 for the year ended December 31, 2019.

Current liabilities decreased by $24,148 for the year ended December 31, 2019. There was a decrease in accrued salaries of $21,910 due to retro payments and decreases in net payables to MTA of $9,459. These decreases were offset by increases in accounts payable of $7,992 and unearned tolls revenue of $1,073 mainly from unredeemed tolls.

Non-current liabilities increased by $65,937 for the year ended December 31, 2019. There was an increase in net derivative instrument liabilities of $33,699 and long-term debt of $27,066. See derivative instrument footnotes and debt footnotes for further details. There were also increases in net pension liability of $22,578 and estimated liability arising from injuries to persons for $3,964. These increases were offset by a decrease in the liability for other post-employment benefits other than pensions of $22,193.

There was an increase in deferred inflows of resources relating to pensions of $57,729 due to an increase in the change in proportionate share of $63,563, offset by a decrease in proportionate share of projected and actual earnings on pension plan investments of $5,834.

December 31, 2018 versus 2017:

Total liabilities and deferred inflows of resources decreased by $9,897 for the year ended December 31, 2018.

Current liabilities decreased by $202,401 for the year ended December 31, 2018. There was a decrease in the current portion of long-term debt of $173,203. See debt footnotes for further details. There were also decreases in accounts payable of $66,205 and decreases in net payables to MTA of $1,899. These decreases were offset by increases in unearned tolls revenue of $25,523 mainly from unredeemed tolls, accrued salaries of $9,291, mainly due to anticipated wage increases, and accrued vacation and sick pay benefits of $3,420.

Non-current liabilities increased by $161,577 for the year ended December 31, 2018. There was an increase in long-term debt of $134,358. See debt footnotes for further details. There were also increases in the liability for other post-employment benefits other than pensions of $113,978, which was due to change in accounting under GASB 75, and in estimated liability arising from injuries to persons of $5,354. These increases were offset by a decrease in net pension liability of $67,901 and net derivative instrument liabilities of $25,506. See derivative instrument footnotes for further details.

There was an increase in deferred inflows of resources relating to pensions of $30,927 due to net increase of projected and actual earnings on pension plan investments as well as a change in proportionate share of $30,071, and an increase of $856, due to the adoption of GASB 75 related to OPEB.

(In thousands)

	As of December 31,			Increase/(Decrease)	
NET POSITION	**2019**	**2018**	**2017**	**2019 - 2018**	**2018 - 2017**
Net investment in capital assets	$ 2,097,086	$ 2,026,021	$ 1,729,947	$ 71,065	$ 296,074
Restricted	1,025,667	902,346	716,586	123,321	185,760
Unrestricted	(6,238,801)	(6,529,571)	(6,488,835)	290,770	(40,736)
Total net position	$ (3,116,048)	$ (3,601,204)	$ (4,042,302)	$ 485,156	$ 441,098

The negative net position has resulted from assets transferred to MTA and NYCTA on prior years' debt financing incurred on their behalf.

Significant Changes in Net Position:

December 31, 2019 versus 2018:

In 2019 the total net position increased by $485,156. This was due to operating income of $1,393,564 less non-operating expenses of $141,634, less net transfers out of $766,774 (principally operating surplus).

December 31, 2018 versus 2017:

In 2018 the total net position increased by $441,098. This was due to operating income of $1,333,962 less non-operating expenses of $280,481, less net transfers out of $599,560 (principally operating surplus) and less the restatement to beginning net position of $12,823.

Condensed Statements of Revenues, Expenses and Changes in Net Position

(In thousands)	Years Ended December 31,			Increase/(Decrease)	
	2019	2018	2017	2019 - 2018	2018 - 2017
OPERATING REVENUES	$ 2,094,850	$ 1,999,584	$ 1,931,939	$ 95,266	$ 67,645
OPERATING EXPENSES	(701,286)	(665,622)	(783,176)	(35,664)	117,554
OPERATING INCOME	1,393,564	1,333,962	1,148,763	59,602	185,199
TOTAL NET NONOPERATING EXPENSES:	(141,634)	(280,481)	(295,177)	138,847	14,696
INCOME BEFORE CONTRIBUTIONS AND TRANSFERS	1,251,930	1,053,481	853,586	198,449	199,895
TRANSFERS IN - MTA	12,301	102,396	168,574	(90,095)	(66,178)
TRANSFERS OUT	(779,075)	(701,956)	(740,144)	(77,119)	38,188
CHANGES IN NET POSITION	485,156	453,921	282,016	31,235	171,905
NET POSITION - BEGINNING OF YEAR	(3,601,204)	(4,042,302)	(4,477,183)	441,098	434,881
RESTATEMENT OF BEGINNING NET POSITION - GASB 75	-	(12,823)	-	12,823	(12,823)
CUMULATIVE EFFECT OF CHANGE IN ACCOUNTING PRINCIPLE	-	-	152,865	-	(152,865)
NET POSITION - END OF YEAR	$ (3,116,048)	$ (3,601,204)	$ (4,042,302)	$ 485,156	$ 441,098

Operating Revenues

For the year ended December 31, 2019, the operating revenues increased by $95,266 as compared to December 31, 2018. Traffic in 2019 set a record with 329.4 million crossings, surpassing the previous high of 322.3 million crossings from the previous year. See “Overall Financial Position and Results of Operations and Important Economic Conditions” below.

For the year ended December 31, 2018, the operating revenues increased by $67,645 as compared to December 31, 2017. Traffic in 2018 set a record with 322.3 million crossings, surpassing the previous high of 310.0 million crossings from the previous year. See “Overall Financial Position and Results of Operations and Important Economic Conditions” below.

Revenue by Major Source

MTA Bridges and Tunnels tolls accounted for 98.9% and 98.8% of operating revenues in 2019 and 2018, respectively. The remaining revenue primarily represented income from parking fees (net of operating expenses) collected at the Battery Parking Garage and fees collected from E-ZPass customers.

Toll revenues (net of bad debt expense relating to toll collections) were $2,071,410 and $1,975,663 for the years ended December 31, 2019 and December 31, 2018, respectively.

Operating Expenses

Operating expenses, including depreciation, increased for the year ended December 31, 2019, as compared to the prior year by $35,664. The increase was primarily due to higher retirement and other employee benefits of $11,480, higher depreciation expense of $18,224, higher other business expenses of $5,618, mainly from toll collection processing fees and credit card fees, and insurance expense of $4,345. These increases were offset by lower post-employment benefits other than pensions of $3,078.

Operating expenses, including depreciation, decreased for the year ended December 31, 2018, as compared to the prior year by $117,554. The decrease was primarily due to lower depreciation expense of $92,831 attributable to prior year disposals of toll plazas and toll equipment, lower retirement and other employee benefits of $19,242 and lower salary and wages of $6,568. This was offset by increases in professional services of $7,534, maintenance and other operating contracts of $2,306, and other business expenses of $8,636, mainly from toll collection processing fees and credit card fees.

Non-operating Revenues (Expenses)

Net non-operating expenses increased by $138,847 for the year ended December 31, 2019. This increase was mainly due to an internet and mansion tax for the Central Business District tolling of $159,048, partially offset by lower interest expense of $24,685.

Net non-operating expenses decreased by $14,696 for the year ended December 31, 2018. This decrease was mainly due to a prior year write-off of insurance recovery of $58,500 partially offset by lower interest expense of $45,130. There are no longer any insurance recoveries receivables outstanding.

OVERALL FINANCIAL POSITION AND RESULTS OF OPERATIONS AND IMPORTANT ECONOMIC CONDITIONS

Economic Conditions/Results of Operations

Two key economic factors that have statistically significant relationships to changes in traffic volumes are regional non-farm employment and inflation (CPI-U). Based on data from the U.S. Bureau of Labor Statistics, regional employment grew on average by 1.4% in 2018 and preliminary reports show average employment growth of 1.5% in 2019. Inflation was 1.9% in 2018 and 1.7% in 2019.

At 329.4 million crossings, traffic in 2019 set a record, surpassing the previous high of 322.3 million crossings in 2018 by 2.2%. The increase is primarily due to improvements in the regional economy, relatively favorable winter weather, stable gas prices, and the substantial completion of Sandy restoration work at the Queens Midtown Tunnel and the Hugh L. Carey Tunnel in the fourth quarter of 2018. Toll revenue in 2019 totaled $2.071 billion, which was $95.7 million, or 4.6% greater than 2018. The additional revenue was due to the higher traffic volume and a toll increase implemented on March 31, 2019.

Traffic in 2018 reached 322.3 million crossings, which was 4.0% above the total volume in 2017. The increase was primarily due to improvements in the regional economy, stable gas prices, improved mobility achieved through cashless tolling, and the substantial completion of Sandy restoration work at the Queens Midtown

Tunnel and the Hugh L. Carey Tunnel in the fourth quarter. Toll revenue in 2018 totaled $1.976 billion, which was $63.8 million, or 3.3% greater than 2017. The additional revenue was due to the higher traffic and a full year's impact of the toll increase implemented on March 19, 2017.

The E-ZPass electronic toll collection system continued to facilitate management of high traffic volumes. All categories grew on a year-to-year basis in both 2019 and 2018:

	2019	**2018**	**2017**
Total	95.08%	94.43%	90.35%
Average Weekday	95.65%	95.05%	91.49%
Passenger Vehicles	95.57%	94.98%	91.20%
Commercial Vehicles	96.53%	95.79%	94.50%
Average Weekend	93.74%	92.91%	87.50%

SIGNIFICANT CAPITAL ASSET ACTIVITY

Capital Program

MTA Bridges and Tunnels' portion of the MTA's Capital Program for 2020-2024 totals $2,824,077 (this excludes $503,000 for Central Business District Tolling Program discussed below) for normal replacement and system improvement projects. There were no commitments made during the fourth quarter 2019.

MTA Bridges and Tunnels' portion of the MTA's Capital Program for 2015-2019 totals $2,936,306 for normal replacement and system improvement projects. The commitments made during the fourth quarter 2019 were $535,215 bringing the total commitment under the five-year plan to $2,432,424.

MTA Bridges and Tunnels' portion of the Capital Program for 2010-2014 totals $2,021,982 for normal replacement and system improvement projects. There were $6,471 in commitments made during the fourth quarter 2019. The total commitment under the five-year plan is $1,972,269.

MTA Bridges and Tunnels' portion of the Capital Program for 2005-2009 totals $1,126,736 for normal replacement and system improvement projects. There were no commitments made during the fourth quarter 2019. The total commitment under the five-year plan is $1,118,778.

Approximately 74% of the projected expenditures in the 2020-2024 Capital Program will be incurred at three facilities: The Robert F. Kennedy Bridge, the Throgs Neck Bridge and the Verrazano-Narrows Bridge. Other major projects in the 2020-2024 Capital Program include the Dyckman Street abutment replacement and substation upgrade at the Henry Hudson Bridge, lighting and power redundancy and resiliency improvements at the Bronx-Whitestone Bridge, tower elevator replacement at the Marine Parkway Bridge, rehabilitation of the Queens Midtown and Hugh L. Carey tunnels' ventilation and service buildings, and the rehabilitation/replacement of the agency-wide facility monitoring and safety systems.

Approximately 58% of the projected expenditures in the 2015-2019 Capital Program will be incurred at three facilities: The Robert F. Kennedy Bridge, the Throgs Neck Bridge and the Verrazano-Narrows Bridge. Other major projects in the 2015-2019 Capital Program include the skewback retrofit and the reconstruction of the upper and lower level toll plaza decks and southbound approach roadway (Phase B) at the Henry Hudson Bridge, the rehabilitation of the Queens Midtown Tunnel controls and communication systems, rehabilitation of the Hugh L. Carey Tunnel ventilation systems, and scour protection, repair and replacement of the pier fender systems at the Cross Bay Bridge.

Approximately 64% of the projected expenditures in the 2010-2014 Capital Program will be incurred at three facilities: the Robert F. Kennedy Bridge, the Bronx-Whitestone Bridge, and the Verrazano-Narrows Bridge. Other major projects in the 2010-2014 Plan include the rehabilitation of tunnel walls, roadway drainage, fire lines and ceiling repairs (Phase II) and replacement of electrical switchgear and power distribution equipment at the Hugh L. Carey Tunnel, upper and lower level toll plazas deck rehabilitation at the Henry Hudson Bridge and a facility-wide electrical upgrade, vent building switchgear and motor control center replacement at the Queens Midtown Tunnel.

Approximately 62% of the expenditures in the 2005-2009 Capital Program have been incurred at four facilities: the Verrazano-Narrows Bridge, the Robert F. Kennedy Bridge, the Bronx-Whitestone Bridge, and the Throgs Neck Bridge.

MTA Bridges and Tunnels' portion of the MTA's Capital Program for Sandy Restoration and Resiliency totals $764,980, of which $595,959 is for facility restoration and $169,021 is for facility mitigation projects. There were $38,147 in commitments made during the fourth quarter 2019. The total commitment under these plans is $711,907 to date. Approximately 95% of the projected expenditures will be incurred at the Hugh L. Carey and Queens Midtown Tunnels.

Capital funding for MTA Bridge and Tunnels' Central Business District Tolling Program totals $503,000. On April 11, 2019, legislation was signed into law enabling the Triborough Bridge and Tunnel Authority (TBTA) to implement the nation's first ever Central Business District Tolling Program (CBDTP) as part of the Fiscal Year 2020 New York State Budget. The planning, design, construction, operations and maintenance of the CBDTP will primarily be the responsibility of TBTA though it will also require the involvement of various other regional agencies and stakeholders. The CBDTP will reduce congestion and enhance mobility in Manhattan's Central Business District (south of and inclusive of 60th street). There were $291,017 in commitments made against the CBDTP in 2019.

CURRENTLY KNOWN FACTS, DECISIONS, OR CONDITIONS

MTA Bridges and Tunnels Infrastructure Losses from Sandy

The novel coranvirus (COVID-19) outbreak is continuing to have an adverse and severe impact on Triborough Bridge and Tunnel 's financial condition and operating results. Crossings at Triborough Bridge and Tunnel facilities are down by an estimated 62% versus last year.

On April 16, 2014, FEMA entered into an agreement with MTA, under the Public Assistance Alternative Procedures Pilot Program, to provide approximately $329 million in FEMA funding for repairs and $74.5 million in FEMA funding for hazard mitigation of the damaged elements of the Hugh L. Carey Tunnel and the Queens Midtown Tunnel. To date, MTA Bridges and Tunnels has applied for an additional $35.7 million from FEMA for restoration and hazard mitigation funding at other facilities, totaling $439.3 million in FEMA funding for all facilities.

Based on preliminary assessments by MTA Bridges and Tunnels staff and independent engineers, the estimated capital cost of repairs, mostly for damage to the tunnels, was $778 million. The estimated cost of repairs was revised by ($157 million) from $778 million to $621 million in the second quarter 2017. The cost estimate modification was attributed to low bids resulting from efficient packaging of work and reflects both actual commitments and revised estimates for remaining and ongoing work. The cost of infrastructure repairs is expected to be covered by a combination of FEMA, insurance, MTA Bridges and Tunnel resources, including its Necessary Construction Reserve, and, if necessary, interim external borrowings. Any such interim borrowings are currently expected to be structured as bond anticipation notes under the MTA Bridges and

Tunnels Senior Resolution, and amounts of such borrowings not reimbursed by the federal government or from insurance coverage are expected to be paid from the proceeds of bonds issued under the MTA Bridges and Tunnels Senior Resolution.

In 2019, costs associated with the storm included repair and clean-up expenses of $0.131 million which are included in “asset impairment and related expenses” on the Statements of Revenues, Expenses and Changes in Net Position.

MTA has not yet received all its FEMA reimbursements. FEMA has approved approximately $17 million in operating budget expenses for emergency measures, debris removal, repair and resiliency for the MTA Bridges and Tunnels’ bridge facilities, of which $15.5 million has been received to date.

Verrazano-Narrows Bridge Rebate Programs

The annualized cost of the 2018-2019 Verrazano-Narrows Bridge Rebate Programs (covering the period April 2018 through March 2019) was approximately $20.8 million, with $14 million for the 2018-2019 Verrazano-Narrows Bridge Commercial Rebate Program and for the 2018-2019 Staten Island Resident Rebate Program, funded equally by the State and MTA, with the State’s contribution provided by appropriations to MTA. Following the 2017 toll increase, an additional $6.8 million in appropriations was provided by the State to MTA to keep the $0.98 rebate for Staten Island Residents with three or more trips per month and the $1.34 rebate for Staten Island Residents with less than three trips per month.

The projected annualized cost of the 2019-2020 (covering the period April 2019 through March 2020) Verrazano-Narrows Bridge Rebate Programs and the rebate amounts for Staten Island Residents are estimated to be $26.8 million, with $14 million for the 2018-2019 Verrazano-Narrows Bridge Commercial Rebate Program and for the 2018-2019 Staten Island Resident Rebate Program, funded equally by the State and the MTA, with the State’s contribution provided by appropriations to the MTA. Following the 2019 toll increase, an additional $12.8 million has been provided by the State to the MTA to keep the $1.38 rebate for Staten Island residents with three or more trips per month and the $1.76 rebate for Staten Island residents with less than three trips per month.

If, as a result of unexpected toll transaction activity, MTA Bridges and Tunnels estimates that such MTA and State funds allocated to the MTA for the 2019-2020 Verrazano-Narrows Bridge Rebate Programs, net of offsets, will be insufficient to fund the 2019-2020 Verrazano-Narrows Bridge Commercial Rebate Program for the full Program year, MTA Bridges and Tunnels may reduce the rebate amount under such Program to a percentage that is forecast to be payable in full for the remainder of the Program year with the available funds. However, in the event that such MTA and State funds allocated to the MTA for the 2019-2020 Verrazano-Narrows Bridge Rebate Programs are fully depleted at any time during the 2019-2020 Verrazano-Narrows Bridge Rebate Programs annual period, the 2019-2020 Verrazano-Narrows Bridge Rebate Programs will cease and Staten Island residents will be charged the applicable resident discount toll and trucks and other commercial vehicles will be charged the applicable New York Customer Service Center E-ZPass toll for the Verrazano-Narrows Bridge.

The Verrazano-Narrows Bridge Rebate Programs will continue into future years provided that (a) the MTA’s annual period contribution does not exceed $7 million, (b) the MTA Board approves a budget that includes the MTA’s contribution to such program, and (c) the State provides to the MTA funds sufficient for at least half the expenses of each continuing annual period.

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TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY

(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF NET POSITION
AS OF DECEMBER 31, 2019 AND 2018
($ in thousands)

	2019	2018
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
CURRENT ASSETS:		
Cash (Note 3)	$ 149,349	$ 10,296
Unrestricted investments (Note 4)	116,605	124,746
Restricted investments (Note 4)	321,940	197,682
Invested funds at MTA—unrestricted (Note 5)	23,372	15,075
Invested funds at MTA—restricted (Note 5)	703,727	704,654
Accrued interest receivable	1,715	2,114
Accounts receivable	289,362	232,852
Less allowance for doubtful accounts	(183,087)	(113,289)
Due from MTA (Note 19)	11,925	10,529
Prepaid expenses	6,334	6,050
Total current assets	1,441,242	1,190,709
NON-CURRENT ASSETS:		
Restricted investments (Notes 4 and 5)	1	9
Capital assets (Note 6):		
Land and construction work-in-progress	557,213	424,695
Other capital assets (net of accumulated depreciation)	6,103,426	5,941,691
Derivative instrument assets (Note 15)	3,519	3,526
Total non-current assets	6,664,159	6,369,921
TOTAL ASSETS	8,105,401	7,560,630
DEFERRED OUTFLOWS OF RESOURCES:		
Related to pensions (Note 7)	64,309	41,500
Related to other post-employment benefits (Note 8)	64,950	60,746
Accumulated decreases in fair value of derivative instruments (Note 15)	177,502	143,796
Loss on debt refunding	220,627	241,443
Total deferred outflows of resources	527,388	487,485
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	$ 8,632,789	$ 8,048,115

(Continued)

See notes to financial statements.

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY

(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF NET POSITION
AS OF DECEMBER 31, 2019 AND 2018
($ in thousands)

LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	2019	2018
CURRENT LIABILITIES:		
Accounts payable	$ 163,930	$ 155,938
Accrued expenses:		
Interest	45,625	46,149
Payable to MTA (Note 19)	370,231	372,358
Payable to NYCTA—operating expense (Note 19)	58	757
Accrued salaries	14,721	36,631
Accrued vacation and sick pay benefits	20,458	19,843
Total accrued expenses	451,093	475,738
Current portion—long-term debt (Notes 11 to 14)	314,990	317,285
Current portion—estimated liability from injuries to persons (Note 17)	7,938	5,975
Due to NYCTA—operating surplus (Note 1 and 19)	42,329	43,233
Due to MTA—operating surplus (Note 1 and 19)	65,537	72,869
Unearned tolls revenue (includes $57,176 and $64,498 in 2019 and 2018, respectively, due to other toll agencies)	255,498	254,425
Total current liabilities	1,301,315	1,325,463
NON-CURRENT LIABILITIES:		
Estimated liability arising from injuries to persons (Note 17)	50,617	46,653
Post employment benefits other than pensions (Note 8)	801,555	823,748
Long-term debt (Notes 11 to 14)	9,020,806	8,993,740
Net pension liability (Note 7)	226,285	203,707
Derivative instrument liabilities (Note 15)	160,754	123,921
Due to MTA—change in fair value of derivative (Note 15 and 18)	20,267	23,401
Obligations under capital leases (Note 16)	57,828	57,005
Total non-current liabilities	10,338,112	10,272,175
TOTAL LIABILITIES	11,639,427	11,597,638
DEFERRED INFLOWS OF RESOURCES:		
Related to pensions (Note 7)	44,991	50,825
Related to other post-employment benefits (Note 8)	64,419	856
TOTAL DEFERRED INFLOWS OF RESOURCES	109,410	51,681
NET POSITION:		
Net investment in capital assets	2,097,086	2,026,021
Restricted	1,025,667	902,346
Unrestricted	(6,238,801)	(6,529,571)
Total net position	(3,116,048)	(3,601,204)
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	$ 8,632,789	$ 8,048,115

See notes to financial statements.

(Concluded)

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TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY

(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018

($ in thousands)

	2019	2018
OPERATING REVENUES:		
Bridges and tunnels	$ 2,071,410	$ 1,975,663
Building rentals and fees	20,997	22,986
Other income	2,443	935
Total operating revenues	2,094,850	1,999,584
OPERATING EXPENSES:		
Salaries and wages	134,215	131,235
Retirement and other employee benefits	86,099	74,619
Post employment benefits other than pensions	66,478	69,556
Electric power	3,933	4,474
Fuel	1,709	1,960
Insurance	16,100	11,755
Maintenance and other operating contracts	150,388	149,393
Professional service contracts	23,487	24,936
Materials and supplies	2,679	4,550
Depreciation	166,910	148,686
Credit card fees	37,639	33,084
Other	11,252	10,189
Total operating expenses	700,889	664,437
Asset impairment and related expenses—(Note 10)	397	1,185
OPERATING INCOME	1,393,564	1,333,962
NON-OPERATING REVENUES (EXPENSES):		
Build America Bonds subsidy	8,360	8,511
Federal Emergency Management Agency reimbursement related to Tropical Storm Sandy	3,267	-
Internet and mansion tax for CBD	159,048	-
Lease Amortization	2,240	1,840
Interest expense (Note 2)	(313,045)	(288,360)
Interest expense—capital lease obligation	(5,193)	(5,075)
Change in fair value of derivative financial instruments (Note 15)	(3,134)	5,999
Change in fair value of derivative—due to MTA	3,134	(5,999)
Investment income	3,689	2,603
Total net non-operating expenses	(141,634)	(280,481)
INCOME BEFORE CONTRIBUTIONS AND TRANSFERS	1,251,930	1,053,481
TRANSFERS IN—Metropolitan Transportation Authority	12,301	102,396
TRANSFERS OUT (Note 1):		
New York City Transit Authority	(334,064)	(290,134)
Metropolitan Transportation Authority	(445,011)	(411,822)
CHANGE IN NET POSITION	485,156	453,921
NET POSITION—Beginning of year	(3,601,204)	(4,042,302)
Restatement of beginning net position - GASB 75 (Note 2)	-	(12,823)
Cumulative effect of change in accounting principle (Note 2)	-	-
NET POSITION—End of year	$ (3,116,048)	$ (3,601,204)

See notes to financial statements.

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY

(Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
($ in thousands)

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES:		
Tolls collected	2,085,827	1,977,301
Building rentals and fees received	23,369	24,015
Payroll and related fringe benefits	(267,637)	(225,333)
Other operating expenses	(256,258)	(258,618)
Net cash provided by operating activities	1,585,301	1,517,365
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Subsidies paid to affiliated agencies	(791,097)	(693,521)
Net cash used in noncapital financing activities	(791,097)	(693,521)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Payment for capital assets	(421,380)	(538,102)
Internet and mansion tax	159,049	-
Principal payments on Senior, Subordinate, COPS, and BAN	(317,285)	(490,270)
Bond proceeds	501,804	1,442,861
Bonds refunded	(100,395)	(647,550)
Interest payments	(352,290)	(366,601)
Net cash used in capital and related financing activities	(530,496)	(599,662)

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY

(A Component Unit of the Metropolitan Transportation Authority)

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
($ in thousands)

	2019	2018
CASH FLOWS FROM INVESTING ACTIVITIES:		
Gross sales of short-term securities	$ 4,167,205	$ 4,180,489
Gross purchases of short-term securities	(4,291,859)	(4,402,795)
Net cash used in investing activities	(124,654)	(222,306)
NET INCREASE/(DECREASE) IN CASH	139,053	1,876
CASH—Beginning of year	10,296	8,420
CASH—End of year	$ 149,349	$ 10,296
RECONCILIATION OF OPERATING INCOME TO NET CASH OPERATING ACTIVITIES:		
Operating income	$ 1,393,564	$ 1,333,962
Adjustments to reconcile to net cash provided by operating activities:		
Depreciation	166,910	148,686
On-behalf payments related to rent (Note 16)	(2,240)	(1,840)
GASB 68 pension expense adjustment	(2,641)	(8,968)
GASB 75 OPEB expense adjustment	37,165	41,265
Net (increase) in receivables	12,279	(24,712)
Net increase (decrease) in operating payables	(1,734)	4,376
Net (increase) in prepaid expenses	(3,707)	(18,707)
Net increase in accrued salary costs, vacation & insurance	(15,368)	17,781
Net increase in unearned revenue	1,074	25,522
NET CASH OPERATING ACTIVITIES	$ 1,585,302	$ 1,517,365
NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES:		
Capital asset related liabilities	$ 73,285	$ 62,750
Interest expense includes amortization of net (premium)*	$ (56,077)	$ (81,759)
Interest expense which was capitalized	$ 19,824	$ 33,666

See notes to financial statements.

(Concluded)

($ in thousands, except as noted)

1. BASIS OF PRESENTATION

Reporting Entity — The Triborough Bridge and Tunnel Authority (the "Authority" or "MTA Bridges and Tunnels") is a public benefit corporation created pursuant to the Public Authorities Law (the "Act") of the State of New York (the "State"). MTA Bridges and Tunnels is a component unit of the Metropolitan Transportation Authority ("MTA"). The MTA is a component unit of the State and is included in the State of New York Comprehensive Annual Financial Report of the Comptroller as a public benefit corporation. MTA Bridges and Tunnels is operationally and legally independent of the MTA. MTA Bridges and Tunnels enjoy certain rights typically associated with separate legal status including the ability to issue debt. However, MTA Bridges and Tunnels is included in the MTA's consolidated financial statements as a blended component unit because of the MTA's financial accountability and MTA Bridges and Tunnels is under the direction of the MTA Board (a reference to "MTA Board" means the board of MTA and/or the boards of the MTA Bridges and Tunnels and other MTA component units 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 MTA Bridges and Tunnels in its consolidated financial statements.

MTA Bridges and Tunnels operates seven toll bridges, two toll tunnels, and the Battery Parking Garage.

All Authority toll facilities operate E-ZPass in conjunction with a regional electronic toll collection system. MTA Bridges and Tunnels' annual net earnings before depreciation and other adjustments ("operating transfer") are transferred to the New York City Transit Authority ("TA") and the MTA pursuant to provisions of the Act. In addition, MTA Bridges and Tunnels annually transfers its unrestricted investment income to the MTA. The operating transfer and the investment income transfer can be used to fund operating expenses or capital projects. The TA receives $24,000 plus 50% of MTA Bridges and Tunnels' remaining annual operating transfer, as adjusted, to reflect certain debt service transactions and the MTA receives the balance of the operating transfer, as adjusted, to reflect certain debt service transactions, plus the annual unrestricted investment income. Transfers are made during the year. The remaining amount due at December 31, 2019 and 2018, of $107,866 and $116,102, respectively, is recorded as a liability in MTA Bridges and Tunnels' financial statements.

MTA Bridges and Tunnels certified to the City of New York (the "City") and the MTA that its operating transfer and its unrestricted investment income at December 31, 2019 and 2018, were as follows:

	2019	2018
Operating transfer	$ 779,075	$ 701,956
Investment income (excludes unrealized gain or loss)	3,689	2,603
	$ 782,764	$ 704,559

2. SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting — The accompanying 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 Bridges and Tunnels 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 Adopted — The MTA Bridges and Tunnels adopted the following GASB Statements for the year ended December 31, 2019:

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

GASB Statement No. 84, *Fiduciary Activities*, improves guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The requirements of GASB Statement No. 84 are effective for reporting periods beginning after December 15, 2018. The adoption of this Statement had no material impact on the MTA Bridges and Tunnels financial statements.

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

GASB Statement No. 90, "*Majority Equity Interest- an Amendment of GASB Statements No. 14 and No. 61"*, improves consistency in the measurement and comparability of the financial statement presentation of majority equity interests in legally separate organizations and improves the relevance of financial statement information for certain component units. The Statement defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. The Statement also establishes that ownership of a majority equity interest in a legally separate organization results in the government being financially accountable for the legally separate organization and, therefore, the government should report that organization as a component unit. In addition, the Statement also requires that a component unit in which a government has a 100 percent equity interest account for its assets, deferred outflows of resources, liabilities and deferred inflows of resources at acquisition value. GASB Statement No. 90 is effective for reporting periods beginning after December 15, 2018. The adoption of this Statement did not have a material impact to the MTA Bridges and Tunnels financial statements.

GASB Statement No. 95, "*Postponement of the Effective Dates of Certain Authoritative Guidance*", provides temporary relief to government and other stakeholders in light of the COVID-19 pandemic. This objective is accomplished by postponing the effective dates of certain accounting and financial reporting provisions in Statements and Implementation Guides that first became effective or are scheduled to become effective for periods beginning after June 15, 2018 and later. GASB Statement No. 95 is effective immediately. The adoption of this Statement did not have a material impact to the MTA's financial statements. However, the MTA did update the required year of adoption for GASB Statements No. 87, 89, 91, 92 and 93. Refer to Accounting Standards Issued but Not Yet Adopted for further details.

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 Bridges and Tunnels 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
89	*Accounting for Interest Cost Incurred Before the End of a Construction Period*	2021
91	*Conduit Debt Obligations*	2022
92	*Omnibus 2020*	2022
93	*Replacement of Interbank Offered Rates*	2022
94	*Public-Private and Public-Public Partnerships and Availability Payment Arrangements*	2023

Use of Management's Estimates — The preparation of the 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 allowances for doubtful accounts, allowance for insurance recovery, 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.

Operating Revenues — Passenger Revenue and Tolls – Revenue is recognized through the fully cashless toll collection system, comprising of toll collection activity and the Tolls-By-Mail video billing. As of October 1, 2017, all facilities were part of the open road tolling system.

MTA Bridges and Tunnels 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 Staten

Island Resident 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 Verrazano- Narrows Bridge Commercial Rebate Program and Staten Island Resident Rebate Program are funded by the State and the MTA.

Non-operating Revenues — Build America Bonds subsidy – MTA Bridges and Tunnels is receiving cash subsidy payments from the U.S. 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 Bridges and Tunnels 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.

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 Bridges and Tunnels (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.

Investments — Effective for 2016, the MTA Bridges and Tunnels adopted GASB Statement No. 72, Fair Value Measurement and Application, which addresses accounting and financial reporting issues related to fair value measurements. Under the Statement, investment assets and liabilities are to be measured at fair value, which is described as the "price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants." Fair Value assumes that the transaction will occur in the MTA's Bridges and Tunnels principal (or most advantageous) market. GASB Statement No. 72 requires a government to use valuation techniques that are appropriate under the circumstances and for which sufficient data are available to measure fair value. Level 1 inputs are quoted prices in an active market for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs.

The MTA Bridges and Tunnels 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.

Investments are recorded on the MTA Bridges and Tunnels statement of net position at fair value, except for commercial paper 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 MTA Bridges and Tunnels statement of revenues, expenses and changes in net position. Fair values have been determined using quoted market values at December 31, 2019 and December 31, 2018.

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

MTA Investment Pool — The MTA, on behalf of the MTA Bridges and Tunnels, invests funds which are not immediately required for the MTA Bridges and Tunnels' 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. All investments are held by the MTA's agent in custody accounts in the name of the MTA. The Company has no financial instruments with significant individual or group concentration of credit risk.

Capital Assets — Properties and equipment are carried at cost and are depreciated on a straight-line basis over 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 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, 25 to 100 years for infrastructure, 10 years for open road tolling systems and equipment, and 25 years for open road tolling 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 13). 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: MTA Bridges and Tunnels is in violation of a pollution prevention-related permit or license; an imminent threat to public health due to pollution exists; MTA Bridges and Tunnels is named by a regulator as a responsible or potentially responsible party to participate in remediation; MTA Bridges and Tunnels voluntarily commences or legally obligates itself to commence remediation efforts; or MTA Bridges and Tunnels is named or there is evidence to indicate that it will be named in a lawsuit that compels participation in remediation activities.

Compensated Absences — MTA Bridges and Tunnels has accrued the full value (including fringe benefits) of all vacation and sick leave benefits earned by employees to date if the leave is attributable to past service and it is probable that MTA Bridges and Tunnels will compensate the employees for the benefits through paid time off or some other means, such as cash payments at termination or retirement.

Net Position — MTA Bridges and Tunnels follows the "business type" activity requirements of GASB 34, Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments which requires that resources be classified for accounting and reporting purposes into the following three net position categories:

- **Net investment in capital assets:**

  Capital assets, net of accumulated depreciation and outstanding principal balances of debt attributable to the acquisition, construction or improvement of those assets.

- **Restricted:**

  Nonexpendable — Net position subject to externally imposed stipulations such that the Authority maintains them permanently. For the years ended December 31, 2019 and 2018, the Authority did not have nonexpendable net position.

  Expendable — Net position whose use by the Authority is subject to externally imposed stipulations that can be fulfilled by actions of the Authority pursuant to those stipulations or that expire with the passage of time. For the years ended December 31, 2019 and 2018, the Authority had expendable restricted net position related to (1) Debt Service of $139,801 and $145,431, and (2) the Necessary Reconstruction Reserve of $971,068 and $756,915.

- **Unrestricted**:

  Net position that are not subject to externally imposed stipulations. Unrestricted net position may be designated for specific purposes by actions of management or the Board of Directors or may otherwise be limited by contractual agreements with outside parties.

Subsidies — Subsidies provided by MTA Bridges and Tunnels represent its operating transfer and investment income computed on an accrual basis.

Pension Plans — The Authority adopted the standards of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions* and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date,* for its pension plans.

The MTA Bridges and Tunnels recognizes a net pension liability for the 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 Bridges and Tunnels' proportionate share thereof in the case of a cost- sharing multiple-employer plan. The net pension liability is calculated using the qualified pension plan's measurement date. 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 2018, MTA Bridges and Tunnels adopted the standards of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* and GASB Statement No. 85, *Omnibus* for the OPEB Plan.

The MTA Bridges and Tunnels recognizes a proportionate share of the net OPEB liability for the MTA's cost-sharing multiple-employer OPEB Plan, 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

The Bank balances are insured up to $250 in the aggregate by the Federal Deposit Insurance Corporation ("FDIC") for each bank in which funds are deposited. The uncollateralized position is due to internet tax revenue and mansion tax revenue transferred close to the end of the year from MTA to TBTA.

Cash at December 31, 2019 and 2018 consists of the following:

	2019		2018	
	Carrying Amount	**Bank Balance**	**Carrying Amount**	**Bank Balance**
Insured deposits	$ 250	$ 250	$ 250	$ 250
Collateralized deposits	$ 33,225	$ 33,225	$ 10,046	$ 9,862
Uncollateralized deposits	$ 115,874	$ 115,691	$ -	$ -
	$ 149,349	$ 149,166	$ 10,296	$ 10,112

4. INVESTMENTS

MTA Bridges and Tunnels' investment policies comply with the New York State Comptroller's guidelines for investment policies. MTA's All-Agency Investment Guidelines restrict MTA Bridges and Tunnels' investments to obligations of the U.S. Treasury, its agencies and instrumentalities and repurchase agreements backed by U.S. Treasury securities. All investments were managed by the MTA, as MTA Bridges and Tunnels' agent, in custody accounts kept in the name of MTA Bridges and Tunnels for restricted investments and in the name of the MTA for unrestricted investments. MTA's All-Agency Investment Guidelines state that securities underlying repurchase agreements must have a market value at least equal to the cost of the investment.

MTA Bridges and Tunnels holds most of its investments at a custodian bank. The custodian must meet certain banking institution criteria enumerated in MTA's Bridges and Tunnels 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 MTA Bridges and Tunnels main custodian cannot execute transactions due to an emergency outside of the custodian's control, MTA Bridges and Tunnels has an immediate alternate source of liquidity.

MTA Bridges and Tunnels 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.

MTA Bridges and Tunnels had the following recurring fair value measurements as of December 31, 2019 and 2018:

(In thousands)	December 31, 2019	Fair Value Measurements Level 1	Fair Value Measurements Level 2	December 31, 2018	Fair Value Measurements Level 1	Fair Value Measurements Level 2
Investments by fair value level:						
Debt securities:						
U.S. treasury securities	$ 388,188	$ 388,188	$ -	$ 200,572	$ 200,572	$ -
U.S. government agency	-	-	-	7,191	-	7,191
Commercial paper	24,975	-	24,975	94,828	-	94,828
Repurchase agreements	25,383	25,383	-	19,846	19,846	-
Total debt securities	438,546	413,571	24,975	322,437	220,418	102,019
Total investments by fair value level	438,546	$ 413,571	$ 24,975	322,437	$ 220,418	$ 102,019
Total investments	$ 438,546			$ 322,437		

Investments classified as Level 1 of the fair value hierarchy, totaling $413,571 and $220,418 as of December 31, 2019 and 2018, respectively, are valued using quoted prices in active markets. Fair values include accrued interest to the extent that interest is included in the carrying amounts. Accrued interest on investments other than Treasury bills and coupons is included in other receivables on the statement of net position. The MTA Bridges and Tunnels investment policy states that securities underlying repurchase agreements must have a market value at least equal to the cost of the investment.

U.S. Government agency securities totaling $0 and $7,191, and commercial paper totaling $24,975 and $94,828, as of December 31, 2019 and 2018, respectively, classified in Level 2 of the fair value hierarchy, are valued using matrix pricing techniques maintained by a third-party pricing service. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices and indices. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from a third-party pricing service or our custodian bank.

Investments had weighted average yields of 1.45% and 2.10% for the years ended December 31, 2019 and 2018, respectively.

Investments available to pay operating and maintenance expenses, debt service and operating surplus transfers, at December 31, 2019 and 2018, are as follows:

Investments	**2019**	**2018**
(in thousands)		
CURRENT:		
Restricted:		
Bond Proceeds Fund	$ 152,495	$ 23,268
Primarily Necessary Reconstruction Fund	38,467	29,569
Debt Service Fund	129,757	143,203
Cost of Issuance Fund	1,221	1,642
Total current — restricted	321,940	197,682
Total current — unrestricted	116,605	124,746
Total — current	$ 438,545	$ 322,428
LONG-TERM:		
Restricted:		
Senior Revenue Bonds	$ 1	$ 9
Total long-term — restricted	1	9
Total — long-term	$ 1	$ 9

The unexpended bond proceeds of the General Purpose Revenue Bonds 1980 Resolution, not including proceeds held for the Transportation Project, were restricted for payment of capital improvements of MTA Bridges and Tunnels' present facilities. The Debt Service Funds are restricted for the payment of debt service as provided by the bond resolutions.

The Necessary Reconstruction Fund was established by MTA Bridges and Tunnels through a resolution adopted on March 29, 1968. The amount in the fund and related interest income is to be used to fund reconstruction of present facilities within the meaning of MTA Bridges and Tunnels General Revenue Bond Resolution.

MTA Bridges and Tunnels' accrual of the liability to the federal government for rebate of arbitrage income from tax-exempt borrowings was $0 at December 31, 2019 and 2018.

The fair value of the above investments consists of $116,605 and $124,746 in 2019 and 2018 in unrestricted investments respectively, and $321,941 and $197,691 in 2019 and 2018 in restricted investments, respectively. Investments had weighted average monthly yields ranging from 1.453% to 2.400%, for the year ended December 31, 2019 and 1.251% to 2.101%, for the year ended December 31, 2018. The net unrealized gain on investments was $228 and $326 for the years ended December 31, 2019 and 2018, respectively.

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.

(In thousands)	December 31, 2019		December 31, 2018	
	Fair Value	Duration (In years)	Fair Value	Duration (In years)
U.S. Treasuries	$ 388,188	0.01	$ 200,572	0.01
Other agencies	-	0.01	7,191	0.01
Repurchase agreements	25,383	-	19,846	-
Commercial paper	24,975	-	94,828	-
Total fair value	438,546		322,437	
Modified duration	-	0.01	-	0.01
Total investments	$ 438,546		$ 322,437	

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

(In thousands) Quality Rating from Standard & Poor's	December 31, 2019	Percent of Portfolio	December 31, 2018	Percent of Portfolio
A-1+	$ -	0 %	$ 7,191	2 %
A-1	24,975	5	94,828	29
Not Rated	25,383	6	19,846	7
U.S. Government	388,188	89	200,572	62
Total	438,546	100 %	322,437	100 %
Total investment	$ 438,546		$ 322,437	

5. MTA INVESTMENT POOL

The MTA, on behalf of MTA Bridges and Tunnels, invests funds which are not immediately required for MTA Bridges and Tunnels' operations in securities permitted by the MTA's All-Agency Investment Guidelines in accordance with 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. All investments are held by the MTA's agent in custody accounts in the name of the MTA. The Company has no financial instruments with significant individual or group concentration of credit risk. MTA Bridges and Tunnels categorizes its fair value measurement within the fair value hierarchy established by U.S. GAAP. The hierarchy is based on the valuation inputs used to measure fair value of the assets. Level 1 inputs are quoted prices in an active market for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs. MTA Bridges and Tunnels' investment in the MTA Investment Pool is valued based on other observable inputs (Level 2 inputs). The amounts related to investment pool funds for the year ended December 31, 2019 were $23,372 for short-term unrestricted and $703,727 for short-term restricted. The amounts related to investment pool funds for the year ended December 31, 2018 were $15,075 for short-term unrestricted and $704,654 for short-term restricted.

6. CAPITAL ADDITIONS AND DELETIONS

Capital assets at December 31, 2019 consisted of the following additions/reclassifications and deletions/reclassifications:

(In thousands)	Balance December 31, 2017	Additions	Deletions	Balance December 31, 2018	Additions	Deletions	Balance December 31, 2019
CAPITAL ASSETS NOT BEING DEPRECIATED:							
Land	$ 52,940	$ -	$ -	$ 52,940	$ -	$ -	$ 52,940
Construction in progress	1,145,860	513,308	1,287,413	371,755	460,336	327,818	504,273
Total capital assets not being depreciated	1,198,800	513,308	1,287,413	424,695	460,336	327,818	557,213
CAPITAL ASSETS BEING DEPRECIATED:							
Building—2 Broadway	81,972	-	-	81,972	-	-	81,972
Primary structures	3,185,241	550,019	-	3,735,260	72,145	-	3,807,405
Toll equipment	-	668	-	668	62	206	524
Buildings	630,718	34,549	-	665,267	5,575	-	670,842
Roadway	1,764,975	304,622	-	2,069,597	90,142	-	2,159,739
Property - Road & Equipment	111,655	325,932	-	437,587	120,581	-	558,168
ORT Systems & Equipment	320,475	63,501	-	383,976	31,952	-	415,928
Other	226,460	4,462	-	230,922	8,189	286	238,825
Total capital assets being depreciated	6,321,496	1,283,753	-	7,605,249	328,646	492	7,933,403
LESS ACCUMULATED DEPRECIATION:							
Building—2 Broadway	42,978	1,154	-	44,132	1,101	-	45,233
Primary structures	590,454	33,959	-	624,413	37,117	-	661,530
Toll equipment	-	8	-	8	10	-	18
Buildings	188,866	16,169	-	205,035	16,668	-	221,703
Roadway	464,269	65,652	-	529,921	72,646	-	602,567
Property - Road & Equipment	17,952	6,901	-	24,853	12,594	-	37,447
ORT Systems & Equipment	8,403	17,686	-	26,089	19,727	-	45,816
Other	202,374	6,733	-	209,107	6,556	-	215,663
Total accumulated depreciation	1,515,296	148,262	-	1,663,558	166,419	-	1,829,977
TOTAL CAPITAL ASSETS BEING DEPRECIATED—Net of accumulated depreciation	4,806,200	1,135,491	-	5,941,691	162,227	492	6,103,426
CAPITAL ASSETS—Net	$ 6,005,000	$ 1,648,799	$ 1,287,413	$ 6,366,386	$ 622,563	$ 328,310	$ 6,660,639

In 2019 and 2018, capital asset additions included $16,667 and $21,175, respectively, of costs incurred by engineers working on capital projects. Capitalized interest totaled $19,824 and $33,666 in 2019 and 2018, respectively.

7. EMPLOYEE BENEFITS

Plan Description

NYCERS — The New York City Employees Retirement System (NYCERS) Plan 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 New York City Administrative Code, which are the basis by which benefit terms and employer and member contribution requirements are established and amended. The head of the retirement system is the Board of Trustees.

NYCERS issues a publicly available comprehensive annual financial report that includes financial statements and required supplementary information. 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 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.

Benefits Provided

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%.

During March 2012, the Governor signed Chapter 18 of the Laws of 2012 that placed certain limitations on the Tier 3 and Tier 4 benefits available to participants who joined on and after April 1, 2012. In general, these changes, commonly referred to as Tier 6, increase the age requirement to 63 for most non-uniformed employees to retire and receive a full pension, require member contributions for all years of service for non-uniformed employees, institute progressive member contributions for non-uniformed employees, and lengthen the final average salary period from 3 to 5 years.

NYCERS provides automatic Cost-of-Living Adjustments (COLA), death benefits, accident, disability retirement benefits, and other supplemental pension benefits to certain retirees and beneficiaries. Members become fully vested as to benefits upon the completion of 5 or 10 years of service.

The State Constitution provides that pension rights of public employees are contractual and shall not be diminished or impaired. In 1973, 1976, 1983 and 2012, significant amendments made to the State Retirement and Social Security Law (RSSL) modified certain benefits for employees joining the Plan on or after the effective date of such amendments, creating membership tiers.

Contributions and Funding Policy

NYCERS funding policy is to contribute statutorily-required contributions (Statutory Contributions), determined by the Chief Actuary for the New York City Retirement System, 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 service or retire.

MTA Bridges and Tunnels is required to contribute at an actuarially determined rate. MTA Bridges and Tunnels contributions to NYCERS for the years ended December 31, 2019 and December 31, 2018 were $48,538 and $38,697, respectively.

Net Pension Liability — MTA Bridges and Tunnels net pension liability for the NYCERS pension plan reported at December 31, 2019 and Decmeber 31, 2018 was measured as of June 30, 2019 and June 30, 2018, respectively. The total pension liability at December 31, 2019 and December 31, 2018 for the NYCERS pension plan was determined as of the actuarial valuation dates as of June 30, 2018 and June 30, 2016, respectively, and updated to roll forward the total pension liability to the measurement dates, respectively. The fiduciary net position and additions to and deductions from the fiduciary net position have been determined on the same basis as reported by NYCERS. For this purpose, benefits and refunds are recognized when due and payable in accordance with the terms of the Plan; and investments are reported at fair value.

Actuarial Assumptions

The total pension liability in each pension plan's actuarial valuation dates were determined using the following actuarial assumptions for the pension plan:

	NYCERS	
Valuation Date:	**June 30, 2018**	**June 30, 2017**
Investment Rate of Return	7.00% per annum, net of investment expenses	7.00% per annum, net of investment expenses
Salary Increases	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.
Inflation	2.50%	2.50%
Cost-of Living Adjustments	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
Mortality	Mortality tables for service and disability pensioners were developed from an experience study of the plan. The mortality tables for beneficiaries were developed from an experience review.	Mortality tables for service and disability pensioners were developed from an experience study of the plan. The mortality tables for beneficiaries were developed from an experience review.
Pre-retirement	N/A	N/A
Post-retirement—Healthy Lives	N/A	N/A
Post-retirement—Disabled Lives	N/A	N/A

Expected Rate of Return on Investments — The long-term expected rate of return on investments of 7.0% for the NYCERS plan 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 allocations of the fund and the expected real rate of return (RROR) for the asset class in NYCERS was as of the measurement dates of June 30, 2019 and is summarized as follows:

	NYCERS 2019	
Asset Class	**Target Asset Allocation**	**Long-Term Expected Real Rate of Return**
U.S. public market equities	29.00 %	7.00 %
International public market equities	13.00	7.10
Emerging public market equities	7.00	9.40
Private market equities	7.00	10.50
U.S. Fixed income	33.00	2.20
Alternatives (real assets, hedge funds)	11.00	5.70
	100 %	
Assumed Inflation - Mean		2.50 %
Long Term Expected Rate of Return		7.00 %

	NYCERS 2018	
Asset Class	**Target Asset Allocation**	**Long-Term Expected Real Rate of Return**
U.S. public market equities	29.00 %	6.30 %
International public market equities	13.00	7.00
Emerging public market equities	7.00	9.50
Private market equities	7.00	10.40
U.S. Fixed income	33.00	2.20
Alternatives (real assets, hedge funds)	11.00	5.50
	100.00 %	
Assumed Inflation - Mean		2.50 %
Long Term Expected Rate of Return		7.00 %

Discount Rate — The discount rate used to measure the total pension liability was 7.0% for the NYCERS plan as of June 30, 2019 and June 30, 2018. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the rates applicable for the pension plan and that employer contributions will be made at the rates determined by the pension plan's actuary. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current and non-active 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.

MTA Bridges and Tunnels Proportion of Net Pension Liability — NYCERS

The following table presents the MTA Bridges and Tunnels proportionate share of the net pension liability of NYCERS at the measurement date of June 30, 2019 and 2018, and the proportion percentage of the net pension liability of NYCERS allocated to MTA Bridges and Tunnels:

	2019	2018
	($ in millions)	
Bridges and Tunnels proportion of the net pension liability	1.222 %	1.155 %
Bridges and Tunnels proportionate share of the net pension liability	$ 226.29	$ 203.71

MTA Bridges and Tunnels proportion of the net pension liability was based on the actual contributions made to NYCERS for the year-ended June 30, 2019 and 2018, relative to the contributions of all employers in the plan.

Sensitivity of the Proportionate Share of the Net Pension Liability to the Discount Rate — The following table presents MTA Bridges and Tunnels proportionate share of the net pension liability calculated using the discount rate of 7.0% for NYCERS, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.0%) or 1-percentage point higher (8.0%) than the current rate used as of each measurement date:

	1% Decrease (6.0%)	Discount Rate (7.0%) (in millions)	1% Increase (8.0%)	1% Decrease (6.0%)	Discount Rate (7.0%) (in millions)	1% Increase (8.0%)
Bridges and Tunnels proportionate share of the net pension liability	$ 349.06	$ 226.29	$ 122.63	$ 312.28	$ 203.71	$ 112.12

Pension Expense, Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions — For the year ended December 31, 2019 and 2018, MTA Bridges and Tunnels recognized pension expense as follows (in thousands):

	December 31,	
Pension Plans	**2019**	**2018**
NYCERS	$ 45,897	$ 29,729

For the years ended December 31, 2019 and 2018, the MTA Bridges and Tunnels reported deferred outflow of resources and deferred inflow of resources for each pension plan as follows:

	2019	
	Deferred Outflows of Resources (in millions)	Deferred Inflows of Resources
Differences between expected and actual experience	$ 18,922	$ 15,719
Changes in assumptions	145	9,488
Net difference between projected and actual earnings on pension plan investments	-	14,041
Proportionate share of contributions	-	5,743
Employer contribution to plan subsequent to the measurement date of net pension liability	45,242	-
Total	$ 64,309	$ 44,991

	2018	
	Deferred Outflows of Resources (in millions)	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 19,675
Changes in assumptions	3,104	-
Net difference between projected and actual earnings on pension plan investments	-	11,426
Proportionate share of contributions	-	19,724
Employer contribution to plan subsequent to the measurement date of net pension liability	38,396	-
Total	$ 41,500	$ 50,825

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 plans to amortize the annual differences between expected and actual experience and the changes in proportion and differences between employer contributions and proportionate share of contributions, beginning the year in which the deferred amount occurs.

Pension Plan	Recognition Period (in Years)		
	Difference Between Expected and Actual Experience	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contribution	Changes in Actuarial Assumptions
NYCERS	6.10	6.10	6.10

For the years ended December 31, 2019 and 2018, $ 48,538 and $38,697, respectively, were reported as deferred outflows of resources related to pensions resulting from MTA Bridges and Tunnels contributions subsequent to the measurement date that will be recognized as a reduction of the net pension liability in the year ended December 31, 2019. 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: (In millions)	**Increase/(Decrease) in Pension Expense**
2020	$ 6,680
2021	13,178
2022	5,992
2023	4,517
2024	(4,030)
Thereafter	(412)
Total	$ 25,925

Deferred Compensation Plans — As permitted by Internal Revenue Code Section 457, MTA Bridges and Tunnels has established a trust or custodial account to hold plan assets for the exclusive use of the participants and their beneficiaries.

Certain MTA Bridges and Tunnels employees are participants in a second deferred compensation plan established in accordance with Internal Revenue Code Section 401(k). Participation in the plan is available to all nonunion and certain other employees. All amounts of compensation deferred under the plan, and all income attributable to such compensation, are solely the property of the participants; accordingly, this plan is not reflected in the accompanying consolidated statements of net position. MTA Bridges and Tunnels is not required to contribute to the plan.

8. OTHER POSTEMPLOYMENT BENEFITS

MTA Bridges and Tunnels 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 and related agencies retired employees and their eligible spouses and dependents, to fund some of the OPEB provided in accordance with the MTA Bridges and Tunnels 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 cost-sharing multiple-employer defined benefit OPEB plan.

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

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

Benefits Provided — The benefits provided by the OPEB Plan include medical, pharmacy, dental, vision, life insurance and a Medicare supplemental plan. The different types of benefits provided vary by agency, employee type (represented employees versus non-represented) and the relevant collective bargaining agreements. Certain benefits are provided upon retirement as defined in the applicable pension plan. Certain agencies provide benefits to certain former employees if separated from service within 5 years of attaining retirement eligibility. Employees of MTA Bridges and Tunnels are members of the NYCERS pension plan.

MTA Bridges and Tunnels 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.

MTA Bridges and Tunnels 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 MTA Bridges and Tunnels must:

(a) have retired;

(b) be receiving a pension (except in the case of the 401(k) Plan);

(c) have at least 10 years of credited service as a member of NYCERS, and

(d) 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.

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.

Contributions — MTA Bridges and Tunnels is not required by law or contractual agreement to provide funding for the OPEB Plan, other than the "pay-as-you-go" ("PAYGO") amounts. PAYGO is the cost of benefits necessary to provide the current benefits to retirees and eligible beneficiaries and dependents. Employees are not required to contribute to the OPEB Plan. The OPEB Plan Board has the authority for establishing and amending the funding policy. For the year-ended December 31, 2019, MTA Bridges and Tunnels paid $29,314 of PAYGO to the OPEB Plan.

During 2012, the MTA funded $250 million into the Trust and an additional $50 million during 2013. There have been no further contributions made to the Trust. The discount rate estimates investment earnings for assets earmarked to cover retiree health benefits. Under GASB Statement No. 75, the discount rate depends on the nature of underlying assets for funded plans. Since the amount of benefits paid in 2017 exceeded the current market value of the assets, a depletion date is assumed to occur immediately. Therefore, the discount rate is set equal to the municipal bond index. The MTA elected the Bond Buyer General Obligation 20-Bond Municipal Bond Index. As a result, the discount rates as of December 31, 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 year ended December 31, 2018 and 2017, the employer made a cash payment for retiree healthcare of $3,650 and 3,450 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**	**2017**
(in thousands)	**Retirees**	**Retirees**
Total blended premiums	24,642	22,957
Employment payment for retiree healthcare	3,650	3,450
Net Payments	**28,292**	**26,407**

(2) Net OPEB Liability

At December 31, 2019 and 2018, MTA Bridges and Tunnels reported a net OPEB liability of $801,555 and $823,748 respectively for its proportionate share of the Plan's net OPEB liability. The 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. The MTA Bridges and Tunnels proportion of the net OPEB liability was based on a projection of the MTA Bridges and Tunnels long-term share of contributions to the OPEB Plan relative to the projected contributions of all participating employers. At December 31, 2019 and 2018, the MTA Bridges and Tunnels proportion was 4.09 percent and 4.06 percent respectively.

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 are 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.

(*3) 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. MTA Bridges and Tunnels 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, the measurement date. The actuarial valuations were performed using the following actuarial assumptions, applied to all periods included in the measurement, unless specified:

	2019	2018
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

Salary Scale — salaries are assumed to increase by years of service. Rates are shown below:

	2019	2018
Year of Employment	Rate ofIncerese	Rate of Incerese
1	11.00%	11.00%
2	10.00%	10.00%
3	9.00%	9.00%
4	8.00%	8.00%
5	7.00%	7.00%
6	6.00%	6.00%
7	5.00%	5.00%
8	4.00%	4.00%
9	3.80%	3.80%
10	3.60%	3.60%
11+	3.50%	3.50%

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. The NYSHIP trend reflects actual increases in premiums to participating agencies through 2018. These assumptions are combined with long-term assumptions for dental and vision benefits of an annual trend of 4.0% plus Medicare Part B reimbursements of an annual trend of 4.5%, but not more than projected medical trends excluding any excise tax adjustments. 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 actuaries 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 Triborough Bridge and Tunnel Authority's OPEB liability is approximately $12.6 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 for MTA Bridges and Tunnels (all amounts are in percentages).

	NYSHIP 2019		MTA Bridges and Tunnels 2019	
Fiscal Year	< 65	>=65	< 65	>=65
2018	8.50%	8.20%	7.50%	4.90%
2019	6.20%	5.50%	5.80%	3.10%
2020	5.80%	5.30%	5.60%	3.90%
2021	5.50%	5.20%	5.30%	4.40%
2022	7.20%	5.10%	5.10%	5.10%
2023	6.10%	5.10%	5.10%	5.10%
2024	6.10%	5.00%	5.00%	5.00%
2025	5.90%	5.00%	5.00%	5.00%
2026	5.90%	5.00%	5.00%	5.00%
2027	5.80%	4.90%	5.00%	4.90%
2037	5.60%	5.00%	5.90%	5.00%
2047	5.40%	5.90%	5.60%	4.90%
2057	5.10%	5.40%	5.20%	4.80%
2067	4.80%	5.00%	4.90%	4.60%
2077	4.20%	4.30%	4.20%	4.00%
2087	4.10%	4.20%	4.20%	4.00%
2097	4.10%	4.20%	4.20%	4.70%

	NYSHIP 2018		MTA Bridges and Tunnels 2018	
Fiscal Year	< 65	>=65	< 65	>=65
2018	8.50%	8.20%	7.50%	4.90%
2019	6.20%	5.50%	5.80%	3.10%
2020	5.80%	5.30%	5.60%	3.90%
2021	5.50%	5.20%	5.30%	4.40%
2022	7.20%	5.10%	5.10%	5.10%
2023	6.10%	5.10%	5.10%	5.10%
2024	6.10%	5.00%	5.00%	5.00%
2025	5.90%	5.00%	5.00%	5.00%
2026	5.90%	5.00%	5.00%	5.00%
2027	5.80%	4.90%	5.00%	4.90%
2037	5.60%	5.00%	5.90%	5.00%
2047	5.40%	5.90%	5.60%	4.90%
2057	5.10%	5.40%	5.20%	4.80%
2067	4.80%	5.00%	4.90%	4.60%
2077	4.20%	4.30%	4.20%	4.00%
2087	4.10%	4.20%	4.20%	4.00%
2097	4.10%	4.20%	4.20%	4.70%

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.

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.

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

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 summarized in the following table:

Asset Class	Target Allocation	Real Rate of Return
US Core Fixed Income	13.00%	2.03%
Global Bonds	15.00%	0.41%
Emerging Markets Bonds	5.00%	3.76%
Global Equity	35.00%	5.65%
Non-US Equity	15.00%	6.44%
Global REITs	5.00%	5.80%
Hedge Funds - MultiStrategy	12.00%	3.28%
Total	**100%**	
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 and 2017 of 4.10% and 3.44% respectively.

Sensitivity of the MTA Bridges and Tunnels Proportionate Share of the Net OPEB Liability to Changes in the Discount Rate — The following presents the MTA Bridges and Tunnels proportionate share of the net OPEB liability, as well as what the MTA Bridges and Tunnels proportionate share of the 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:

2019	1% Decrease (3.10%)	Discount Rate (4.10%)	1% Increase (5.10%)
		(In millions)	
Proportionate share of the net OPEB liability	$ 917.07	$ 801.55	$ 706.44

2018	1% Decrease (2.44%)	Discount Rate (3.44%)	1% Increase (4.44%)
		(In millions)	
Proportionate share of the net OPEB liability	$ 950.33	$ 825.59	$ 723.38

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

2019	1% Decrease	Healthcare Cost Current Trend Rate *	1% Increase
		(In millions)	
Proportionate share of the net OPEB liability	$ 684.75	$ 801.55	$ 948.52

2018	1% Decrease	Healthcare Cost Current Trend Rate *	1% Increase
		(In millions)	
Proportionate share of the net OPEB liability	$ 706.20	$ 825.59	$ 976.18

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

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

For the year ended December 31, 2019 and 2018, MTA Bridges and Tunnels recognized OPEB expense of $66,478 and 69,556 respectively, which represents its proportionate share of the Plan's OPEB expense.

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, changes in assumptions and the changes in proportion and differences between employer contributions and proportionate share of contributions are amortized over a 7.4 year close period, beginning the year in which the deferred amount occurs.

At December 31, 2019, MTA Bridges and Tunnels reported deferred outflows of resources and deferred inflows of resources related to OPEB as follows (In thousands):

	December 31, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 406	$ (687)
Changes in assumptions	27,227	(63,732)
Net difference between projected and actual earnings on OPEB plan investments	760	-
Changes in proportion and differences between contributions and proportionate share of contribution	7,243	-
Employer contributions to the plan subsequent to the measurement of net OPEB liability	29,314	-
Total	**$ 64,950**	**$ (64,419)**

For the year ended December 31, 2019, $64,950 was reported as deferred outflows of resources related to OPEB. This amount includes both MTA Bridges and Tunnels 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 ending December 31:	
2020	$ (3,680)
2021	(3,680)
2022	(3,680)
2023	(3,465)
2024	(3,816)
Thereafter	(10,461)
	$ (28,782)

9. POLLUTION REMEDIATION PROJECTS

MTA Bridges and Tunnels implemented GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*, in 2008. The Statement establishes standards for determining when expected pollution remediation outlays should be accrued as a liability or, if appropriate, capitalized. An operating expense and corresponding liability, measured at its current value using the expected cash flow method, has been recognized for certain pollution remediation obligations that are no longer able to be capitalized as a component of a capital project. Pollution remediation obligations, which are estimates and subject to changes resulting from price increases or reductions, technology, or changes in applicable laws or regulations, occur when any one of the following obligating events takes place:

- An imminent threat to public health due to pollution exists
- MTA Bridges and Tunnels is in violation of a pollution prevention-related permit or license
- MTA Bridges and Tunnels is named by a regulator as a responsible or potentially responsible party to participate in remediation
- MTA Bridges and Tunnels is named or there is evidence to indicate that it will be named in a lawsuit that compels participation in remediation activities
- MTA Bridges and Tunnels voluntarily commences or legally obligates itself to commence remediation efforts

In accordance with GASB Statement No. 49, there was no pollution remediation expense provision in 2019 or 2018.

10. ASSET IMPAIRMENT AND RELATED EXPENSES

On October 29, 2012, Tropical Storm Sandy made landfall just south of Atlantic City, New Jersey, as a post-tropical cyclone. The accompanying storm surge and high winds caused widespread damage to the physical transportation assets operated by MTA and its related groups. MTA expects to recoup most of the costs associated with repair or replacement of assets damaged by the storm over the next several years from a combination of insurance and federal government assistance programs.

As of December 31, 2019 and 2018, costs associated with the storm including repair and clean-up expenses of $0.4 million and $1.2 million, respectively, were included in “asset impairment and related expenses” on the Statements of Revenues, Expenses and Changes in Net Position.

11. LONG-TERM DEBT

MTA Bridges and Tunnels issues long-term bonds to fund its own capital projects, as well as the Transportation Project, through the following two credits:

- General Revenue Bonds, and
- Subordinate Revenue Bonds.

The following represents MTA Bridges and Tunnels’ issuance of long-term debt in 2019:

- On May 23, 2019, MTA Bridges and Tunnels issued $150,000 General Revenue Bonds, Series 2019A. The net proceeds were issued to finance projects for MTA Bridges and Tunnels’ own facilities.
- On September 25, 2019, MTA Bridges and Tunnels issued $102,465 General Revenue Bonds, Series 2019B. The net proceeds were used refunding of Series 2001B of $101,465 Bonds.

- On December 3, 2019, MTA Bridges and Tunnels issued $200,000 General Revenue Bonds, Series 2019C. The net proceeds were issued to finance projects for MTA Bridges and Tunnels' own facilities.

- On December 3, 2019, MTA Bridges and Tunnels remarketed 2003B-2 of $46,050 from a LIBOR Floating rate to a Term Rate Mode bearing interest at the adjusted SIFMA rate.

The following represents MTA Bridges and Tunnels' issuance of long-term debt in 2018:

- On January 25, 2018, MTA Bridges and Tunnels remarketed 2003B-1 of $122,635 and 2005B-2 of $190,300 from a Weekly mode to a Daily mode. On 2003B-1 and 2005B-2 the irrevocable direct-pay letter of credit issued by Wells Fargo is now issued from Bank of America and Citibank respectively.

- On February 1, 2018, MTA Bridges and Tunnels issued $351,930 General Revenue Bonds, Series 2018A. The net proceeds were issued to finance projects for MTA Bridges and Tunnels' own facilities and refunding of Series 2017A1-A6.

- On June 27, 2018, MTA Bridges and Tunnels remarketed 2001C of $107,275 and 2005B-3 of $190,300 from a Weekly mode to a Daily mode. On 2001C and 2005B-3 the irrevocable direct-pay letter of credit issued by Bank of Tokyo is now issued from State Street & Trust Co. respectively.

- On August 30, 2018, MTA Bridges and Tunnels issued $270,090 General Revenue Bonds, Series 2018B. The net proceeds were issued to finance projects for MTA Bridges and Tunnels' own facilities and refunding on 2008C, and 2008D Subordinate Bond. The loss on refunding related to the 2018B issuance was $3,334, which will be amortized into interest expense over 13 years.

- On August 30, 2018, MTA Bridges and Tunnels issued $159,280 General Revenue Bonds, Series 2018C. The net proceeds were issued to finance projects for MTA Bridges and Tunnels' own facilities and refunding on 2009A-2. The gain on refunding related to the 2018C issuance was $3,610, which will be amortized into interest expense over 20 years.

- On September 26, 2018, MTA Bridges and Tunnels remarketed 2001B of $107,280 from a Weekly mode to the Term Rate Mode bearing interest at a variable rate based on the Secured Overnight Financing Rate (SOFR) index. On 2001B the irrevocable direct-pay letter of credit issued by State Street Bank and Trust Co is now issued by Bayerische Landesbank.

- On October 4, 2018, MTA Bridges and Tunnels issued $125,000 General Revenue Bonds, Series 2018D. The net proceeds were issued to finance projects for MTA Bridges and Tunnels' own facilities.

- On October 30, 2018, MTA Bridges and Tunnels remarketing of 2002F of $162,995 will remain a daily mode. On 2002F the irrevocable direct-pay letter of credit issued by Citibank, N.A is now issued by Landesbank Hessen-Thuringen Girozentrale acting through its New York Branch.

- On November 28, 2018, MTA Bridges and Tunnels remarketed 2005B-4c and 2005B-4d was consolidated to 2005B-4c to $82,500 from a Term Rate Mode to a daily mode. On 2005B-4c obtain an irrevocable direct-pay letter of credit issued by U.S. Bank National Association.

- On December 12, 2018, MTA Bridges and Tunnels issued $148,470 General Revenue Bonds, Series 2018E. The net proceeds were used refunding of Series 2013D-2a and 2013D-2b Taxable Subordinate Bonds.

MTA Bridges and Tunnels' non-current portion of long-term debt as of December 31, 2019 and 2018 is comprised of the following:

(In thousands)	**2019**	**2018**
Senior Revenue Bonds (Notes 12)	$8,178,630	$8,079,079
Subordinate Revenue Bonds (Note 13)	842,176	914,661
Total long-term debt—net of premiums and discounts	$9,020,806	$8,993,740

MTA Bridges and Tunnels has entered into several Letter of Credit Agreements and Standby Bond Purchase Agreements (together, "Credit and Liquidity Agreements") as listed on the table below.

Resolution	**Series**	**Provider**	**Exp. Date**
TBTA General Revenue	2001C	State Street	June 26, 2023
TBTA General Revenue	2002F	Citibank, N.A.	October 29, 2021
TBTA General Revenue	2003B-1	Bank of America, N.A.	January 21, 2022
TBTA General Revenue	2005A	Barcleys Bank	January 24, 2024
TBTA General Revenue	2005B-2	Citibank, N.A.	January 28, 2021
TBTA General Revenue	2005B-3	State Street	June 26, 2023
TBTA General Revenue	2005B-4c	U.S. Bank National Assoc.	May 26, 2022
TBTA General Revenue	TBTA 2018E Taxable	Bank of America, N.A.	December 12, 2022

According to the terms of the Credit and Liquidity Agreements, if the remarketing agent fails to remarket any of the bonds listed above that are tendered by the holders, the bank is required (subject to certain conditions) to purchase such unremarketed portion of the bonds. Bonds owned by the bank and not remarketed after a specified amount of time (generally 90 days) are payable to the bank as a term loan over five years in ten equal semiannual principal payments including interest thereon. As of December 31, 2019, there were no term loans outstanding.

Bond Refundings — From time to time, 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 statement of net position.

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

	December 31,	
(In millions)	**2019**	**2018**
MTA Bridges and Tunnels:		
General Purpose Revenue Bonds	$ 628	$ 674
Special Obligation Subordinate Bonds	89	102
Mortgage Recording Tax Bonds		-
Total	$ 717	$ 776

For the year ended December 31, 2019, MTA Bridges and Tunnels refunding transactions increased against aggregate debt service payments by $59 million and provided an economic gain of $5 million. For the year ended December 31, 2018, MTA Bridges and Tunnels refunding transactions decreased against aggregate debt service payments by $75 million and provided an economic gain of $82 million. Details of bond refunding savings for 2019 and 2018 are as follows:

Bonds Refunded in 2019 (In millions)	Series	Date Issued	Par Value Refunded	Debt Service Savings	Net Present Value of Savings
MTA Bridges and Tunnels General Revenue Bonds					
	TBTA 2019B	9/25/2019	$ 101	$ (59)	$ 5
Total MTA Bridges and Tunnels General Revenue Bonds			101	(59)	5
Total Bond Refunding Savings			$ 101	$ (59)	$ 5

Bonds Refunded in 2018 (In millions)	Series	Date Issued	Par Value Refunded	Debt Service Savings	Net Present Value of Savings
MTA Bridges and Tunnels General Revenue Bonds					
	TBTA 2018B	8/30/2018	$ 270	$ 80	$ 62
	TBTA 2018C	8/30/2018	159	(5)	20
Total MTA Bridges and Tunnels General Revenue Bonds			429	75	82
Total Bond Refunding Savings			$ 429	$ 75	$ 82

For the years ended December 31, 2019 and 2018, the accounting loss/gain on bond refundings totaled $0 million and $0.28 million, respectively. Unamortized losses related to bond refundings were as follows:

(In millions)	December 31, 2017	Loss on Refunding	Year Amortization	December 31, 2018	Loss on Refunding	Year Amortization	December 31, 2019
TBTA:							
General Revenue Bonds	$ 233	$ 0.82	$ (20)	$ 214	$ -	$ (22)	$ 192
Subordinate Revenue Bonds	30	-	(2)	28	-	1	29
	263	0.82	(22)	242	-	(21)	221

12. DEBT — SENIOR REVENUE BONDS

Senior Revenue Bonds at December 31, 2019, consist of the following:

(In thousands)	Original Issuance	December 31, 2018	Issued	Principal Repayments	December 31, 2019
Series 2001B&C, 4.10% - 5.25%	$ 296,400	214,555	$	$ 113,080	$ 101,475
Series 2002F	246,480	162,995	-	8,900	154,095
Series 2003B	250,000	168,685	-	6,195	162,490
Series 2005A	150,000	106,495	-	4,425	102,070
Series 2005B	800,000	570,900	-	3,000	567,900
Series 2008B	252,230	166,770	-	-	166,770
Series 2009A-1	150,000	68,395	-	3,345	65,050
Series 2009B - BAB	200,000	200,000	-	-	200,000
Series 2010A-1	66,560	15,825	-	7,720	8,105
Series 2010A-2 - BAB	280,400	280,400	-	-	280,400
Series 2011A	609,430	94,875	-	22,065	72,810
Series 2012A	231,490	171,875	-	4,820	167,055
Series 2012B	1,353,055	1,089,605	-	99,795	989,810
Series 2013B	257,195	257,195	-	40,365	216,830
Series 2013C	200,000	149,925	-	3,970	145,955
Series 2014A	250,000	195,825	-	4,740	191,085
Series 2015A	225,000	195,990	-	3,040	192,950
Series 2015B	65,000	61,510	-	1,270	60,240
Series 2016A	541,240	512,350	-	6,775	505,575
Series 2017A	300,000	300,000	-	-	300,000
Series 2017B	902,975	902,975	-	-	902,975
Series 2017C	720,990	720,990	-	-	720,990
Series 2018A	351,930	351,930	-	-	351,930
Series 2018B	270,090	270,090	-	-	270,090
Series 2018C	159,280	159,280	-	-	159,280
Series 2018D	125,000	125,000	-	-	125,000
Series 2018E	148,470	148,470	-	-	148,470
Series 2019A	-	-	150,000	-	150,000
Series 2019B	-	-	102,465	-	102,465
Series 2019C	-	-	200,000	-	200,000
	$ 9,403,215	7,662,905	452,465	333,505	7,781,865
Add net unamortized bond (discount) and premium		648,204	47,096	52,545	642,755
		$ 8,311,109	$ 499,561	$ 386,050	$ 8,424,620

Senior Revenue Bonds at December 31, 2018, consist of the following:

(In thousands)	Original Issuance	December 31, 2017	Issued	Principal Repayments	December 31, 2018
Series EFC 1996A	$ 23,530	$ 325	$ -	$ 325	$ -
Series 2001B&C, 4.10% - 5.25%	296,400	225,425	-	10,870	214,555
Series 2002F	246,480	171,555	-	8,560	162,995
Series 2003B	250,000	174,645	-	5,960	168,685
Series 2005A	150,000	110,710	-	4,215	106,495
Series 2005B	800,000	573,900	-	3,000	570,900
Series 2008A	822,770	24,165	-	24,165	-
Series 2008B	252,230	166,770	-	-	166,770
Series 2008C	629,890	210,145	-	210,145	-
Series 2009A-1	150,000	76,760	-	8,365	68,395
Series 2009A-2	325,000	182,335	-	182,335	-
Series 2009B - BAB	200,000	200,000	-	-	200,000
Series 2010A-1	66,560	23,175	-	7,350	15,825
Series 2010A-2 - BAB	280,400	280,400	-	-	280,400
Series 2011A	609,430	115,945	-	21,070	94,875
Series 2012A	231,490	176,555	-	4,680	171,875
Series 2012B	1,353,055	1,184,990	-	95,385	1,089,605
Series 2013B	257,195	257,195	-	-	257,195
Series 2013C	200,000	153,740	-	3,815	149,925
Series 2014A	250,000	200,380	-	4,555	195,825
Series 2015A	225,000	198,885	-	2,895	195,990
Series 2015B	65,000	62,720	-	1,210	61,510
Series 2016A	541,240	523,265	-	10,915	512,350
Series 2017A	300,000	300,000	-	-	300,000
Series 2017B	902,975	902,975	-	-	902,975
Series 2017C	720,990	720,990	-	-	720,990
Series 2018A	-	-	351,930	-	351,930
Series 2018B	-	-	270,090	-	270,090
Series 2018C	-	-	159,280	-	159,280
Series 2018D	-	-	125,000	-	125,000
Series 2018E	-	-	148,470	-	148,470
	$ 10,149,635	7,217,950	1,054,770	609,815	7,662,905
Add net unamortized bond (discount) and premium		597,534	129,454	78,784	648,204
		$ 7,815,484	$ 1,184,224	$ 688,599	$ 8,311,109

Debt Service Requirements:

Year Ending December 31 (In thousands)	**Principal**	**Interest**	**Aggregate Debt Service**
2020	$ 245,990	$ 296,335	$ 542,325
2021	245,210	288,345	533,555
2022	252,045	276,645	528,690
2023	274,395	264,755	539,150
2024	308,670	249,959	558,629
2025–2029	1,850,915	1,024,100	2,875,015
2030–2034	1,860,665	623,360	2,484,025
2035–2039	1,275,185	338,740	1,613,925
2040–2044	870,085	104,365	974,450
2045–2049	585,630	20,302	605,932
2050	13,075	654	13,729
	$ 7,781,865	$ 3,487,560	$ 11,269,425

The above interest amounts include both fixed and variable rate calculations. The interest rate assumptions for variable rate bonds are as follows: variable rate bonds at an assumed rate of 4%; swapped bonds at the applicable synthetic fixed rate for the swapped portion and 4% otherwise; floating rate notes at the applicable synthetic fixed rate plus the current fixed spread to maturity for the swapped portion and 4% plus the current fixed spread to maturity for the portion that is not swapped.

13. DEBT — SUBORDINATE REVENUE BONDS

Subordinate Revenue Bonds at December 31, 2019, consist of the following:

(In thousands)	Original Issuance	December 31, 2018	Addition/ Retirements During 2019	December 31, 2019
Series 2000ABCD	$ 147,850	$ 18,850	$ (18,850)	$ -
Series 2002E	756,095	115,040	(44,455)	70,585
Series 2008D	491,110	-	-	-
Series 2013A	761,599	736,195	(7,780)	728,415
Series 2013D	313,975	151,540	(14,170)	137,370
	$ 2,470,629	1,021,625	(85,255)	936,370
Add net unamortized bond (discount) and premium		(21,709)	(3,485)	(25,194)
		$ 999,916	$ (88,740)	$ 911,176

Subordinate Revenue Bonds at December 31, 2018, consist of the following:

(In thousands)	Original Issuance	December 31, 2017	Retirements During 2018	December 31, 2018
Series 2000ABCD	$ 147,850	$ 57,700	$ (38,850)	$ 18,850
Series 2002E	756,095	139,825	(24,785)	115,040
Series 2008D	491,110	135,520	(135,520)	-
Series 2013A	761,599	743,480	(7,285)	736,195
Series 2013D	313,975	309,220	(157,680)	151,540
	$ 2,470,629	1,385,745	(364,120)	1,021,625
Add net unamortized bond (discount) and premium		(16,267)	(5,442)	(21,709)
		$ 1,369,478	$ (369,562)	$ 999,916

Debt Service Requirements:

Year Ending December 31 (In thousands)	Principal	Interest	Aggregate Debt Service
2020	$ 69,000	$ 33,231	$ 102,231
2021	71,850	30,128	101,978
2022	76,325	26,823	103,148
2023	81,115	23,330	104,445
2024	74,060	19,596	93,656
2025–2029	352,510	45,538	398,048
2030–2032	211,510	3,094	214,604
	$ 936,370	$ 181,740	$ 1,118,110

The above interest amounts include both fixed and variable rate calculations. The interest rate assumptions for variable rate bonds are as follows: variable rate bonds at an assumed rate of 4%; swapped bonds at the applicable synthetic fixed rate for the swapped portion and 4% otherwise; floating rate notes at the applicable synthetic fixed rate plus the current fixed spread to maturity for the swapped portion and 4% plus the current fixed spread to maturity for the portion that is not swapped.

14. GASB 53 — DERIVATIVE INSTRUMENTS

MTA Bridges and Tunnels implemented GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*, in 2010. The Statement deals with the recognition, measurement, and disclosure of information regarding derivative instruments, and addresses hedge accounting requirements. Hedging derivative instruments are supposed to significantly reduce financial risk by substantially offsetting the associated changes in cash flows or fair values of the underlying bond portfolio.

For the year ended December 31, 2019, the MTA Bridges and Tunnels is reporting loss, derivative instrument liabilities and deferred outflows from derivative instruments in the amounts of $3,134, $160,754 and $177,502, respectively. The loss of $3,134 is related to swaps on MTA bonds which is offset by a gain of $3,134 reflected in other operating income. Also recognized in the same period are derivative instrument assets of $3,519.

For the year ended December 31, 2018, the MTA Bridges and Tunnels is reporting gains, derivative instrument liabilities and deferred outflows from derivative instruments in the amounts of $5,999, $123,921 and $143,796, respectively. The gain of $5,999 is related to swaps on MTA bonds which is offset by a loss of $5,999 reflected in other operating income. Also recognized in the same period are derivative instrument assets of $3,526.

GASB Statement No. 53- Accounting and Financial Reporting for Derivative Instruments
Summary Information as of December 31, 2019

	Bond Resolution	Series	Type of Derivative	Cash Flow or Fair Value Hedge	Effective Methodology	Trade/ Entered Date	Notional Amount as of 12/31/19 (in millions)	Fair Values as of 12/31/19 (in millions)
Investment Swap	MTA Transportation Revenue Bond	2002G-1	Pay-Fixed Swap	N/a	N/a	4/1/2016	112.730	(7.972)
	MTA Transportation Revenue Bond	2011B	Pay-Fixed Swap	N/a	N/a	4/1/2016	84.520	(15.529)
Hedging Swaps	MTA Bridges & Tunnels Senior Revenue Bonds	2002F (Citi 2005B)	Pay-Fixed Swap	Cash Flow	Synthetic Instrument	6/2/2005	189.300	(32.438)
	MTA Bridges & Tunnels Senior Revenue Bonds	2005A (COPS 2004A)	Pay-Fixed Swap	Cash Flow	Synthetic Instrument	1/1/2011	22.650	(2.699)
	MTA Bridges & Tunnels Senior Revenue Bonds	2005B	Pay-Fixed Swap	Cash Flow	Synthetic Instrument	6/2/2005	567.900	(97.317)
	MTA Bridges & Tunnels Subordinate Revenue Bonds	2001C	Pay-Fixed Swap	Cash Flow	Synthetic Instrument	10/26/2016	21.275	(1.280)

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

(In Millions)	Changes In Fair Value		Fair Value at December 31, 2019		Notional Amount
	Classification	Amount	Classification	Amount	
Government Activities					
Cash Flow hedges— Pay-fixed interest rate swaps	Deferred Inflow of resources	$ (33.706)	Debt	$ (133.734)	801.125
Investment Swap— Pay-fixed interest rate swaps	Investment expense	(3.134)	Debt	(23.501)	197.250

The summary above reflects a total number of five (5) swaps and hedging relationships that were reviewed for GASB Statement No. 53 Hedge Accounting treatment. Of that total, five (5) were deemed effective using Synthetic Instrument Method.

15. FOR THE FIVE (5) HEDGING RELATIONSHIPS, THE SYNTHETIC INSTRUMENT METHOD WAS UTILIZED TO DETERMINE EFFECTIVENESS. UNDER THE SYNTHETIC INSTRUMENT METHOD, IF THE RATE DETERMINED BY DIVIDING THE HISTORICAL SWAP AND BOND PAYMENTS (FIXED SWAP PAYMENTS + FLOATING BOND PAYMENTS—FLOATING SWAP PAYMENTS) BY THE HEDGE NOTIONAL AMOUNT PRODUCES AN "ACTUAL SYNTHETIC RATE" THAT IS WITHIN 90% TO 111% OF THE CORRESPONDING FIXED SWAP RATES THEN THE HEDGING DERIVATIVE INSTRUMENT IS DEEMED TO BE EFFECTIVE.LEASE TRANSACTION

2 Broadway — 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 sub lessee, 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 $1.2 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 December 31, 2019, for the MTA New York City Transit, MTA Bridges and Tunnels and MTA (including MTA Bus, MTA Capital Construction Company and MTA Business Service Center) were 52.8%, 7.5% and 16.1%, respectively. MTA Bridges and Tunnels' sublease is for a year-to-year term, automatically extended, except upon the giving of a nonextension 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. MTA Bridges and Tunnels has recorded capital lease assets using the net present value, and using a borrowing rate of 9.11%, and has reflected a capital lease obligation as of December 31, 2019 and 2018, of $57,828 and $57,005, respectively.

MTA pays the lease payments on behalf of 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 Bridges and Tunnels was $2,240 less than the lease payment made by MTA on behalf of MTA Bridges and Tunnels.

Total net obligations under all capital leases as of December 31, 2019 and 2018, are as follows:

(In thousands)	2019	2018
Beginning of the year	$ 57,005	$ 55,711
Deletions	-	-
Additions	823	1,294
Amortization	-	-
End of year	$ 57,828	$ 57,005

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

	2019	2018
Capital lease - building	$ 81,865	$ 81,865
Less accumulated amortization	(45,233)	(44,132)
Capital lease - building—net	$ 36,632	$ 37,733

Net minimum capital and operating lease payments are as follows:

Years Ending December 31 (In thousands)	Capital Aggregate Lease Payments	Operating Aggregate Lease Payments
2020	$ 4,371	$ 2,405
2021	4,371	2,405
2022	4,371	2,405
2023	4,371	2,405
2024-2028	25,041	12,026
2029-2033	31,669	12,026
2034-2038	37,581	12,026
2039-2043	41,595	12,026
2044-2048	41,338	10,821
Minimum future lease payments	194,708	68,545
Amount representing interest	(136,880)	-
Present value of capital lease obligations	$ 57,828	$ 68,545

Total accumulated depreciation under capital leases was approximately $45,233 and $44,132 in 2019 and 2018, respectively.

Rental amount incurred during 2019 and 2018 were $165 and $565, respectively.

16. RISK MANAGEMENT

MTA Bridges and Tunnels is exposed to various risks of loss related to torts; theft of, damage to, and destruction of its assets; injuries to persons, including employees; and natural disasters.

MTA Bridges and Tunnels is self-insured up to $3.2 million per occurrence for liability arising from injuries to persons, excluding employees. MTA Bridges and Tunnels is self-insured for work related injuries to employees and for damage to third party property. MTA Bridges and Tunnels provides reserves to cover the self-insured portion of these claims, including a reserve for claims incurred but not reported. The annual cost arising from injuries to employees and damage to third-party property is included in “Retirement & other employee benefits” and “Insurance” in the accompanying statements of revenues, expenses and changes in net position.

A summary of activity in estimated liability arising from injuries to persons, including employees, and damage to third-party property, as of December 31, 2019 and 2018, is as follows:

(In thousands)	**2019**	**2018**
Balance—beginning of year	$ 52,628	$ 47,559
Activity during the year:		
Current year claims and changes in estimates	6,999	6,852
Claims paid	(1,072)	(1,783)
Balance—end of year	58,555	52,628
Less current portion	(7,938)	(5,975)
Long-term liability	$ 50,617	$ 46,653

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 million for MTA New York City Transit, MaBSTOA, MTA Bus, MTA Long Island Rail Road, and MTA Metro-North Railroad; $2.3 million for MTA Long Island Bus and MTA Staten Island Railway; and $1.6 million 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 million for MTA New York City Transit, MaBSTOA, MTA Bus, MTA Long Island Rail Road and MTA Metro-North Railroad; $2.6 million for MTA Long Island Bus and MTA Staten Island Railway; and $1.9 million 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 million for MTA New York City Transit, MaBSTOA, MTA Bus, MTA Long Island Rail Road and MTA Metro-North Railroad; $3 million for MTA Staten Island Railway; and $2.6 million 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 million for MTA New York City Transit, MaBSTOA, MTA Bus, MTA

Long Island Rail Road and MTA Metro-North Railroad; $3.2 million for MTA Staten Island Railway; MTAHQ and MTA Bridges and Tunnels. The maximum amount for claims arising out of any one occurrence is the total assets of the program available for claims, but in no event greater than $50 million. 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 million per occurrence with a $50 million annual aggregate. FMTAC charges appropriate annual premiums based on loss experience and exposure analysis to maintain the fiscal viability of the program. On December 31, 2019, the balance of the assets in this program was $164.1 million.

MTA also maintains an All-Agency Excess Liability Insurance Policy that affords the MTA Group additional coverage limits of $350 million for a total limit of $400 million ($350 million excess of $50 million). 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 million.

Property Insurance — Effective May 1, 2019, FMTAC renewed the all-agency property insurance program. For the annual period commencing May 1, 2019, FMTAC directly insures property damage claims of the Related Entities in excess of a $25 million per occurrence deductible, subject to an annual $75 million aggregate deductible. The total All Risk program annual limit is $575 million 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 million per occurrence. The property insurance policy provides replacement cost coverage for all risks (including Earthquake, Flood and Wind) of direct physical loss or damage to all real and personal property, with minor exceptions. The policy also provides extra expense and business interruption coverage.

Supplementing the $575 million per occurrence note above, FMTAC's property insurance program has been expanded to include a further layer of $125 million of fully collateralized earthquake coverage for an event of a certain index value and for storm surge coverage for losses from storm surges that surpass specified trigger levels in the New York Harbor or Long Island Sound and are associated with named storms that occur at any point in the three year period from May 23, 2017 to April 30, 2020. The expanded protection is reinsured by MetroCat Re Ltd. 2017-1, a Bermuda special purpose insurer independent from the MTA and formed to provide FMTAC with capital markets based property reinsurance. The MetroCat Re Ltd. 2017-1 reinsurance policy is fully collateralized by a Regulation 114 trust invested in U.S. Treasury Money Market Funds. The additional coverage provided is parametric and available for storm surge losses resulting from a storm that causes water levels that reach the specified index values, and also for an earthquake event of a certain index value.

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

To supplement the reinsurance to FMTAC through the TRIPRA, MTA obtained an additional commercial reinsurance policy with various reinsurance carriers in the domestic, London and European marketplaces.

That policy provides coverage for (1) 19% of any "certified" act of terrorism up to a maximum recovery of $204.3 million for any one occurrence and in the annual aggregate during 2019 and 20% of any "certified" act of terrorism up to a maximum recovery of $215 million for any one occurrence and in the annual aggregate during 2020 (2) the TRIPRA FMTAC captive deductible (per occurrence and on an aggregated basis) that applies when recovering under the "certified" acts of terrorism insurance or (3) 100% of any "certified" terrorism loss which exceeds $5 million and less than the $180 million TRIPRA trigger up to a maximum recovery of $180 million for any occurrence and in the annual aggregate during 2019 or 100% of any "certified" terrorism loss which exceeds $5 million and less than the $200 million TRIPRA trigger up to a maximum recovery of $200 million for any occurrence and in the annual aggregate during 2020.

Additionally, MTA purchases coverage for acts of terrorism which are not certified under TRIPRA to a maximum of $204.3 million in 2019 and $215 million in 2020. Recovery under the terrorism policy is subject to a deductible of $25 million per occurrence and $75 million 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 million future losses in that policy year are subject to a deductible of $7.5 million. The terrorism coverages expire at midnight on December 31, 2020.

COMMITMENTS AND CONTINGENCIES

At December 31, 2019 and 2018, MTA Bridges and Tunnels had unused standby letters of credit, relative to insurance, amounting to $2.712 million and $2.712 million, respectively.

MTA Bridges and Tunnels is involved in various litigations and claims involving personal liability claims and certain other matters. Although the ultimate outcome of these claims and suits cannot be predicted at this time, management does not believe that the ultimate outcome of these matters will have a material effect on the financial position, results of operations and cash flows of MTA Bridges and Tunnels.

Under the terms of federal 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 questioned costs may occur, ultimate repayments required of the MTA or the Authority have been infrequent in prior years.

17. SWAP AGREEMENTS

Swap Agreements Relating to Synthetic Fixed Rate Debt — 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 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.

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 Board on March 13, 2013. The guidelines establish limits on the amount of interest rate derivatives instruments 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 Bridges and Tunnels has entered into separate pay-fixed, receive-variable interest rate swaps at a cost anticipated to be less than what 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 Value — The terms, fair values and counterparties of the outstanding swaps of MTA Bridges and Tunnels are reflected in the following tables (as of December 31, 2019).

MTA BRIDGES AND TUNNELS SENIOR LIEN REVENUE BONDS							
Associated Bond Issue	Notional Amounts as of 12/31/2019 (in millions)	Effective Date	Fixed Rate Paid	Variable Rate Received	Fair Values as of 12/31/2019 (in millions)	Swap Termination Date	Counterparty
Series 2002F[1]	$ 189.300	07/07/05	3.076 %	67% of one-month LIBOR[1]	$ (32.438)	01/01/32	Citibank, N.A.
Series 2005B-2a,b,c, 2005B-3 and 2005B-4a,b,c,d,e[1]	567.900	07/07/05	3.076	67% of one-month LIBOR[1]	(97.317)	01/01/32	33% each – JPMorgan Chase Bank, NA, BNP Paribas North America, Inc. and UBS AG
Total	$ 757.200				$ (129.755)		

MTA BRIDGES AND TUNNELS SUBORDINATE REVENUE BONDS							
Associated Bond Issue	Notional Amounts as of 12/31/2019 (in millions)	Effective Date	Fixed Rate Paid	Variable Rate Received	Fair Values as of 12/31/2019 (in millions)	Swap Termination Date	Counterparty
Series 2005A	$ 22.650	09/24/04	3.090 %	Lesser of Actual Bond or 67% of one-month LIBOR – 45 basis points	$ 2.699	01/01/30	U.S. Bank N.A., Wells Fargo Bank, N.A.
Series 2001C[6]	$ 21.275	04/01/16	3.52	67% of one-month LIBOR[1]	$ 1.280	01/01/30	U.S. Bank N.A., Wells Fargo Bank, N.A.
Total	$ 43.925				$ 3.979		

(1) On February 19, 2009, MTA Bridges and Tunnels General Revenue Variable Rate Refunding Bonds, Series 2005B-1 were refunded. Notional amounts from the Series 2005B-1 swap were reassigned to MTA Bridges and Tunnels General Revenue Variable Rate Refunding Bonds, Series 2002F, MTA Bridges and Tunnels General Revenue Variable Rate Bonds, Series 2003B-1,2,3 and from November 1, 2027 through November 1, 2030, to MTA Bridges and Tunnels General Revenue Variable Rate Bonds, Series 2005A-2,3.

(2) In accordance with a swaption entered into on August 12, 1998, the Counterparty paid to MTA Bridges and Tunnels a premium of $22,740,000.

(3) On September 30, 2014, the TBTA Subordinate Revenue Variable Rate Refunding Bonds, Series 2000AB, together with the TBTA Subordinate Revenue Variable Rate Refunding Bonds Series 2000CD, were redesignated as the Series 2000ABCD Bonds and converted from a Weekly Mode to a Term Mode. The swap now hedges the portion of the Series 2000ABCD bonds that originally related to the Series 2000AB bonds.

(4) On December 18, 2012, MTA Variable Rate Certificates of Participation, Series 2004A associated with the swap in connection with Series 2004A Bonds, were redeemed. Notional amounts from the Series 2004A swap were reassigned to MTA

Transportation Revenue Variable Rate Bonds, Series 2011B; and MTA Bridges and Tunnels General Revenue Variable Rate Bonds, Series 2005A-1.

(5) On November 19, 2013, MTA Variable Rate Certificates of Participation, Series 2004A associated with the swap in connection with Series 2004A Bonds, were redeemed. Notional amounts from the Series 2004A swap were reassigned to MTA Transportation Revenue Variable Rate Bonds, Series 2011B; and MTA Bridges and Tunnels General Revenue Variable Rate Bonds, Series 2005A-1.

(6) In accordance with a swaption entered into on August 12, 1998, TBTA received an upfront option premium of $22.740, which is being amortized over the life of the swap agreement. 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. 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
SIFMA: Securities Industry and Financial Markets Association Index
TRB: Transportation Revenue Bonds

Counterparty Ratings — The current ratings of the counterparties are as follows as of December 31, 2019:

	Ratings of the Counterparty or its Credit Support Provider		
Counterparty	**S&P**	**Moody's**	**Fitch**
U.S. Bank National Association	AA-	A1	AA-
Wells Fargo Bank, N.A.	A+	Aa2	AA-
BNP Paribas North America, Inc.	A+	Aa3	A+
Citibank, N.A.	A+	Aa3	A+
JPMorgan Chase Bank, NA	A+	Aa2	AA
UBS AG	A+	Aa3	AA-

Swap Notional Summary — The following table sets forth the notional amount of Synthetic Fixed Rate debt and the outstanding principal amount of the underlying floating rate series as of December 31, 2019 (in thousands):

Series	Outstanding Principal	Notional Amount
TBTA 2005B-4 (a,b,c,d,e)	$ 189,300	$ 189,300
TBTA 2005B-3	189,300	189,300
TBTA 2005B-2 (a,b,c)	189,300	189,300
TBTA 2005A	102,070	22,650
TBTA 2003B (1,2,3)	162,490	35,205
TBTA 2002F	154,095	154,095
TBTA 2001C	101,475	21,275
2002G-1	112,730	112,730
2011B	99,560	84,520
Total	$ 1,300,320	$ 998,375

Except as discussed below under the heading "*Rollover Risk*," the swap agreements contain scheduled reductions to outstanding notional amounts that are expected to approximately follow scheduled or anticipated reductions in the principal amount of the associated 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 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 Bridges and Tunnels requires its counterparties to fully collateralize if ratings fall below certain levels (in general, at the Baa1/BBB+ level), with partial posting requirements at higher rating levels (details on collateral posting discussed further under "Collateralization/Contingencies"). As of December 31, 2019, all the valuations were in liability positions to MTA Bridges and Tunnels; accordingly, no collateral was posted by any of the counterparties.

The notional amount totals below include all swaps. The counterparties have the ratings set forth above.

Counterparty	Notional Amount (in thousands)	% of Total Notional Amount
JPMorgan Chase Bank, NA	$ 189,300	18.96 %
UBS AG	189,300	18.96
Citibank, N.A.	189,300	18.96
BNP Paribas North America, Inc.	189,300	18.96
U.S. Bank National Association	120,588	12.08
Wells Fargo Bank, N.A.	120,587	12.08
Total	$ 998,375	100 %

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 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 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 Bridges and Tunnels.

Termination Risk — The risk that a swap agreement will be terminated and 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 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 Bridges and Tunnels is subject to termination risk if its credit ratings fall below certain specified thresholds or if MTA Bridges and Tunnels commits a specified event of default or other specified event of termination. If, at the time of termination, a swap was in a liability position to MTA Bridges and Tunnels, a termination payment would be owed by MTA Bridges and Tunnels to the counterparty, subject to applicable netting arrangements.

The ISDA Master Agreements entered into with the following counterparties provide that the payments under one transaction will be netted against other transactions entered into under the same ISDA Master Agreement:

- JPMorgan Chase Bank, NA with respect to the MTA Transportation Revenue Variable Rate Refunding Bonds, Series 2002D-2 and Series 2012G.

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 transactions' fair values so that a single sum will be owed by, or owed to, the non-defaulting party.

Collateralization — Generally, the Credit Support Annex attached to the ISDA Master Agreement requires that if the outstanding ratings of MTA, MTA Bridges and Tunnels, MTA New York City Transit, or the counterparty falls to a certain level, the party whose rating falls is required to post collateral with a third-party custodian to secure its termination payments above certain threshold valuation amounts. Collateral must be cash or U.S. government or certain Federal agency securities.

The following tables set forth the ratings criteria and threshold amounts relating to the posting of collateral set forth for MTA, MTA Bridges and Tunnels, MTA New York City Transit, and the counterparty for each swap agreement. In most cases, the counterparty does not have a Fitch rating on its long-term unsecured debt, so that criteria would not be applicable in determining if the counterparty is required to post collateral.

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

MTA Bridges and Tunnels Senior Lien

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

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

MTA Bridges and Tunnels Subordinate Lien

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

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

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

MTA 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 — MTA and MTA Bridges and Tunnels are exposed to rollover risk on swaps that mature or may be terminated prior to the maturity of the associated debt. When these swaps terminate, MTA or MTA Bridges and Tunnels may not realize the synthetic fixed rate offered by the swaps on the underlying debt issues. The following debt is exposed to rollover risk:

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

Collateralization/Contingencies — Under the majority of the swap agreements, 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 Bridges and Tunnels does not post collateral, the swaps may be terminated by the counterparties.

As of December 31, 2019, the aggregate mid-market valuation of MTA Bridges and Tunnels' swaps subject to collateral posting agreements was $(157,235); 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 Bridges and Tunnels and its counterparties.

MTA Bridges and Tunnels Senior Lien

Counterparty	MTA Bridges and Tunnels Collateral Thresholds (based on highest rating)	Counterparty Collateral Thresholds (based on highest rating)
BNP Paribas North America, Inc.; Citibank, N.A.; JPMorgan Chase Bank, NA;	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-: $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 Tunnel's 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 BRIDGES AND TUNNELS
(In millions)

Year Ending December 31	Variable-Rate Bonds Principal	Variable-Rate Bonds Interest	Net Swap Payments	Total
2020	$ 25.4	$ 37.0	$ (6.9)	$ 55.5
2021	26.6	36.0	(6.8)	55.8
2022	27.6	34.9	(6.8)	55.7
2023	28.6	33.8	(6.8)	55.6
2024	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	0.0	2.0	0.0	2.0

18. RELATED PARTY TRANSACTIONS

MTA Bridges and Tunnels and other affiliated MTA agencies receive support from MTA in the form of budget, cash management, finance, legal, real estate, treasury, risk and insurance management, and other services, some of which are charged back.

The resulting receivables and payables from the above transactions are recorded in the due from/to MTA and affiliated agencies account included in the accompanying balance sheets.

Due from/to MTA and affiliated agencies consists of the following at December 31, 2019 and 2018 (in thousands):

	2019		2018	
	Receivable	**(Payable)**	**Receivable**	**(Payable)**
Due from (due to) MTA	$ 11,925	$ (435,768)	$ 10,529	$ (445,227)
Due from (due to) MTA	-	(20,267)	-	(23,401)
Due from (due to) affiliated agencies	-	(42,387)	-	(43,990)
	$ 11,925	$ (498,422)	$ 10,529	$ (512,618)

19. SUBSEQUENT EVENTS

Updated Assessment of Impacts from the COVID-19 Pandemic on MTA and MTA Bridges and Tunnels Finances and Operations

- ***Background Relating to the Global Coronavirus Pandemic*****.** The novel coronavirus ("COVID-19") outbreak is continuing to have an adverse and severe impact on MTA's financial condition and operating results. 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 12, 2020, the World Health Organization declared the COVD-19 outbreak to be a pandemic in the face of the global spread of the virus. The COVID-19 pandemic has dramatically altered the behavior of businesses and people in a manner that is having negative effects on global and local economies. In addition, stock markets in the U.S. and globally, have seen significant declines and volatility attributed to concerns over COVID-19, and capital markets remain disrupted. These adverse impacts have intensified and continue to evolve daily globally, nationally, and particularly within the State and MTA's service area, which has become the most severely impacted region in the United States, with the most confirmed cases of infection and regrettably the most fatalities from COVID-19. On March 7, 2020 Governor Cuomo declared a Disaster Emergency in the State of New York and on March 13, 2020 President Trump declared a national state of emergency as a result of the COVID-19 pandemic. In addition, by order of

Governor Cuomo ("New York State on PAUSE"), as of Sunday, March 22nd, all non-essential businesses Statewide were required to be closed, among other restrictive social distancing and related measures. These related measures, most recently, include by Governor's Executive Order, that effective at 8 p.m. on Friday, April 17, 2020 any individual who is over age two and able to medically tolerate a face-covering shall be required to cover their nose and mouth with a mask or cloth face-covering when in a public place and unable to maintain, or when not maintaining, social distance. New York State on PAUSE restrictions remain in place at least through May 15, 2020. This intervention to fight the aggressive spread of the COVID-19 pandemic has further eroded already severely diminished public transportation and bridge and tunnel usage during the duration of the COVID-19 pandemic.

- ***Currently Adopted Federal Legislative and Administrative Actions.*** The Federal government has taken several actions which are expected to provide flexibility and substantial additional funding to MTA. The Federal Transit Administration ("FTA") has given transit grantees, including MTA, the flexibility to apply certain existing grant program proceeds, previously only available for capital expenditures, to be applied for operating expenses or other purposes to address COVID-19 pandemic impacts.

  In addition, Federal emergency legislation, the "Coronavirus Aid, Relief and Economic Security Act" or "CARES Act", received final passage by Congress and was signed into law by the President on March 27, 2020. The CARES Act through FTA's formula funding provisions is expected to provide approximately $3.8 billion to MTA. Funding will be provided at a 100 percent Federal share, with no local match required, and will be 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.
  MTA is also eligible for FEMA payments in addition to the CARES Act funding. FEMA will cover expenses that are over and above normal costs that are related to COVID-19, such as sanitizing MTA facilities and safety at job sites to ensure COVID -19 regulations are being adhered to.

- ***Updated Assessment of 2020 Impacts of the COVID-19 Pandemic and Economic Study Analysis.*** On April 16, 2020, MTA Chairman and Chief Executive Officer Patrick J. Foye wrote to the New York State Congressional delegation, urging Congressional action to provide an additional $3.9 billion in Federal grant assistance "to stem the immediate hemorrhaging in the MTA's 2020 operating budget". Such aid would be supplemental to the approximately $3.8 billion contained in the CARES Act, and would have to be included in any upcoming new Congressional COVID-19 aid package, and is also exclusive of any capital infrastructure stimulus funding to be considered by Congress and the Administration.

  The CARES Act funding amounts for MTA derived from a conservative estimate based on the information MTA management had at the time. A clearer picture of the impact of the crisis has emerged over the last few weeks, and now with the aid of a detailed economic study led by McKinsey & Company (the "McKinsey Report"), MTA management projects the full 2020 financial impact of the COVID-19 crisis to the MTA to be between $7.0 and $8.5 billion. After the receipt of the expected $3.8 billion under the CARES Act, the net financial impact in 2020 is estimated to be between $3.2 and $4.7 billion. The $3.9 billion request is the midpoint of this range.

  Compared to 2019 results, crossings at MTA Bridges and Tunnels facilities are down by an estimated 62%.. Based on the current ridership and reasonable forecasts of a slow return to higher (but not pre-COVID-19 pandemic) levels in 2020, MTA, based upon projections in the McKinsey Report, expects to see combined losses in fare and toll revenues of between $4.7 and $5.9 billion in 2020, and additional impacts in 2021. Projections for 2021 are of necessity more speculative at this time and were beyond the scope of the McKinsey Report.

Moreover, the McKinsey Report, based upon limited available data, forecasts losses of between $1.6 and $1.8 billion in State and local taxes dedicated to MTA in 2020 as a result of the extraordinary economic downturn facing the region and nation.

The McKinsey Report provided an estimate of the shortfalls discussed below through the end of calendar year 2020, ranging between $3.2 and $4.7 billion after accounting for the $3.8 billion the MTA is expected to receive through the CARES Act.

By way of background to the McKinsey Report forecasts, on March 17, 2020, five days before the stay-at-home order went into effect for New York State, MTA projected that it would face a 2020 budget shortfall of at least $4 billion in fare and toll revenues, based upon then current ridership and bridge and tunnel crossings declines. This estimate explicitly did not take into account the impact of the COVID-19 pandemic on taxes and other dedicated revenue streams that support MTA's operations. Approximately, one month later, it is now clear that the COVID-19 pandemic is more severe and of longer duration than had been anticipated. The impact to MTA's finances is material and leaves a gap that must be filled in order to sustain normal operations. MTA has begun refining the fare and toll revenue loss projections to reflect these changes, as well as projecting losses in the tax and other subsidy revenues that generally make up approximately one-half of MTA's total revenue sources. McKinsey & Company was contracted by MTA to analyze the potential impact of the COVID-19 pandemic on MTA's 2020 calendar year revenues.

As noted above, this analysis did not attempt to capture the impact of the COVID-19 pandemic on MTA finances in 2021. A view of 2021 will need to be developed when the key factors that influence it; the course of the virus, public health responses, including social isolation measures, and the trajectory of the economic recovery, can be seen with greater clarity. The McKinsey Report focused on operating costs and did not make any assumptions related to additional capital expenditures that MTA may incur over the course of the COVID-19 pandemic. It is limited to giving an initial view of additional operating costs.

In general, the McKinsey Report reviewed two scenarios for how revenues may be affected in the full calendar year 2020. The scenarios developed reflected different assumptions for how transit and commuter rail ridership and bridge and tunnel traffic will behave across several variables. The report further analyzed MTA's dedicated revenue streams and the impact of the COVID-19 pandemic on the variety of economic activity that generates much of the dedicated tax component of this revenue stream. The estimated incremental negative revenue impacts on MTA, after accounting for the CARES Act assistance of $3.8 billion, ranged from $3.2 billion to $4.7 billion. The midpoint between these two scenarios, $3.9 billion, was selected as the basis of MTA's April 16th request to Congress.

There is substantial risk that the higher end of the range could materialize based on uncertainties in the course of the COVID-19 pandemic, the speed of development and mass promulgation of high-volume clinical testing and protocols, the availability of medical supplies and equipment, continued public adherence to protective policies, and Federal policy response.

- ***MTA Liquidity Resources***. MTA currently has liquidity resources, consisting of a current running cash balance, internal available flexible funds, OPEB resources and commercial bank lines of credit totaling $1.201 billion ($1.0 billion of which has been drawn). *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.*

  Longer-term resource options to address the COVID-19 pandemic impacts, may include, but are not limited to, (i) approximately $4 billion in federal emergency transit grants pursuant to the CARES Act,

(ii) replacing programmed pay-as-you-go capital funds with long term bonding, (iii) various debt restructuring options generating potential resources depending upon market conditions and other matters, and (iv) applying new, federal FTA grant flexibility rules to use in the current federal fiscal year for operating relief in the emergency. The MTA Board on March 25, 2020 authorized MTA to secure an additional $2 billion in commercial bank lines of credit market conditions permitting. Also, see the additional significant financial assistance and flexibility provided in the State's FY 2020-21 Enacted Budget. There can be no assurance that MTA will be successful in securing additional lines of credit.

As noted above, exercising these options would come at a cost, including increased longer-term borrowing and potential adverse impacts on the timing of MTA initiatives to improve its systems. The loss of farebox and toll revenues, potential declines in State and local, as well as reprogramming of available federal and possibly State generated funding support for capital purposes, to urgent financial needs, will result in delays and shortfalls in implementing Capital Plan projects. The full impact of the COVID-19 pandemic on Capital Plan implementation cannot be determined at this time.

Finally, as is provided in the February Plan, MTA relies in State and local subsidies and dedicated taxes. The financial stress which MTA is experiencing as a result of the COVID-19 pandemic is being similarly felt at all levels of the government and in the social and financial lives of MTA patrons and State and local residents. This can be expected to have a substantial adverse impact on State and local revenues, on dedicated tax collections, and thus on the capacity of the State and local governments to maintain or raise the level of financial support to MTA during this crisis.

- ***Capital Plan Procurement and Construction Contract Delays***. MTA Construction and Development Company ("MTACDC") is currently evaluating the impacts of the COVID-19 pandemic on MTA's Capital Plans. MTACDC expects to reassess a path forward for implementation of the Capital Plans in the face of the COVID-19 pandemic in 60 days. In the meantime, MTACDC will cease the award of new Capital Plan construction or consulting contracts and, with few exceptions, MTACDC is, effective April 1, 2020, suspending action on open solicitations for all such contracts. With limited exceptions, the dates for submission of bids, requests for qualification and requests for proposals for open solicitations for MTACDC, or for any other capital budget-funded MTA projects, will be adjourned until further notice. Similarly, currently scheduled qualification hearings and pre-bid conferences have been cancelled and will be rescheduled as appropriate. The full impact of the COVID-19 pandemic on Capital Plan implementation cannot be determined at this time.

- ***New York State Fiscal Year 2020-21 Budget Provisions of Importance to MTA.*** Several provisions in the State's fiscal year 2020-21 budget (as passed by both the State Assembly and State Senate and signed by the Governor on April 3, 2020 the "State FY 2020-21 Enacted Budget"), are intended to provide significant financial assistance and flexibility to aid MTA in addressing the adverse impacts caused by the COVID-19 pandemic. Among the provisions in the State FY 2020-21 Enacted Budget addressing MTA's needs are the following:

  (i) amends existing law to allow MTA to use monies in the Central Business District Tolling Lockbox Fund (the "CBD Tolling Lockbox Fund") for two years (2020 and 2021) to offset decreases in revenue (i.e. lost taxes, fees, charges, fares and tolls) or increases in operating costs due in whole or in part to the State emergency disaster caused by the COVID-19 pandemic. The CBD Tolling Lockbox Fund currently includes Internet sales tax revenue and mansion tax revenue that will be used for operations. In the future, CBD tolling revenue will be added when that program is up and running, although CBD tolling revenue may be restricted under Federal law to capital expenses. All revenues deposited in such fund were under prior law only available for capital costs of MTA's 2020-24 Capital Plan and successor capital plans, and costs of the Central Business District tolling program. This provision also provides that if MTA receives funds/reimbursements from Federal government or insurance due to the COVID-19 pandemic, MTA must repay the CBD Tolling Lockbox Fund, but only after it has first fully repaid any COVID-19 pandemic related public or private borrowings, draws on lines of credit; issuances of revenue anticipation notes, internal loans; or use of corpus of MTA's OPEB trust;

(ii) amends existing law to increase MTA's bond cap from $55.497 billion to $90.1 billion through 2024;

(iii) creates new authorization for MTA to issue up to $10 billion of bonds for three years (2020-2022) to offset decreases in revenue (i.e. lost taxes, fees, charges, fares and tolls) or increases in operating costs of the MTA and its Related Entities due in whole or in part to the State disaster emergency caused by the COVID-19 pandemic;

(iv) commits the State and the City to each pay $3 billion to fund capital costs of the MTA's 2020-2024 Capital Plan. Additionally,

-State's Director of the Budget will determine schedule for the City's payments of its $3 billion share to MTA,

- if the City does not pay in full any of its scheduled payments, the Director of the Budget shall require the State Comptroller to intercept aid to localities appropriations to the City, or any other revenue source of the City, including sales and use tax, in an amount equal to the City's unpaid balance and deposit it into a newly established State-held fund, the MTA Capital Assistance Fund, and

- the State Comptroller must pay monies deposited in the MTA Capital Assistance Fund to MTA without appropriation, and

(v) requires the City, beginning on July 1, 2020, to pay one-half of the MTA's net paratransit operating expenses for four years: 2020, 2021, 2022, and 2023, and provides a statutory mechanism to intercept funds otherwise available to the City to insure payment of the City's share, if necessary. The City's contribution for each of those years is capped in the law as follows: 2020: $215 million; 2021: $277 million; 2022: $290 million; and 2023: $310 million

- ***Dedication of 341-7 Madison Avenue Redevelopment Proceeds to MTA Capital Program.*** MTA and the City of New York announced on April 2, 2020, an agreement on a site-specific value capture strategy to speed development of 341-7 Madison Avenue, the site of the MTA's former headquarters in midtown Manhattan. Real estate taxes and other revenue generated from the future ground lease for the redevelopment of the property will be dedicated to the MTA capital program. The redevelopment plan is projected to generate more than $1 billion over the life of the ground lease to fund approved MTA New York City Transit projects. The agreement is part of the City of New York's commitment to provide $600 million from alternative non-tax-levy revenue sources as part of its $2.66 billion contribution to MTA's 2015-2019 Capital Plan.

- ***COVID-19 Family Benefits Agreement***. On April 14, 2020, the MTA, Transport Workers Union Local 100 (TWU), the International Association of Sheet Metal, Air, Rail and Transportation Workers (SMART), and International Brotherhood of Teamsters Local 808 (IBT) reached an agreement on COVID-19 family benefits for transportation workers tragically lost in the pandemic. The benefits include a payment of $500,000 from the MTA to the surviving family of any worker who lost their life as a result of COVID-19, in addition to providing health insurance to the spouse and dependents to the age of 26 of the surviving family for three years. The MTA continues to have ongoing discussions with all labor partners to extend the COVID-19 family benefits agreement to all members of its represented workforce. The agreement will also be extended to all non-represented employees. The agreement is subject to Board ratification on April 22, 2020.

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REQUIRED SUPPLEMENTARY INFORMATION

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY

(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF THE AUTHORITY'S PROPORTIONATE SHARE OF NET PENSION LIABILITY IN THE NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM AT JUNE 30, 2019

	NYCERS			
	2019 (in millions)	**2018 (in millions)**	**2017 (in millions)**	**2016 (in millions)**
Authority's proportion of the net pension liability	1.222 %	1.155 %	1.308 %	1.266 %
Authority's proportionate share of the net pension liability	$ 226.29	$ 203.71	$ 271.61	$ 307.60
Authority's actual covered-employee payroll	$ 157.46	$ 126.57	$ 130.30	$ 133.89
Authority's proportionate share of the net pension liability as a percentage of the Authority's covered-employee payroll	143.71 %	160.95 %	208.450 %	229.741 %
Plan fiduciary net position as a percentage of the total pension liability	78.83 %	78.83 %	74.80 %	69.57 %

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available.

(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF THE AUTHORITY'S CONTRIBUTIONS TO THE NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM
FOR THE YEARS ENDED DECEMBER 31,
(In thousands)

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Contractually required contribution	$ 48,538	$ 38,697	$ 41,272	$ 44,609	$ 41,812	$ 33,023	$ 33,461	$ 36,183	$ 27,671	$ 25,455
Contributions in relation to the contractually required contribution	48,538	38,697	41,272	44,609	41,812	33,023	33,461	36,183	27,671	25,455
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Authority's covered-employee payroll	$ 164,110	$ 133,494	$ 144,992	$ 137,900	$ 150,652	$ 167,988	$ 132,095	$ 128,184	$ 128,730	$ 135,339
Contributions as a percentage of covered-employee payroll	29.58 %	28.99 %	28.47 %	32.35 %	27.75 %	19.66 %	25.33 %	28.23 %	21.50 %	18.81 %

Notes to Authority's Contributions to NYCERS:

Significant methods and assumptions used in calculating the actuarially determined contributions of an employer's proportionate share in a Cost Sharing, Multiple-Employer pension plan, the NYCERS Plan, should be 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 changes of benefit terms in the June 30, 2013 funding valuation.

Changes of Assumptions

There were no changes of benefit assumptions in the June 30, 2013 fund valuation.

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF THE AUTHORITY'S PROPORTIONATE SHARE OF THE NET OPEB LIABILITY IN THE MTA OPEB PLAN AT:
(IN MILLIONS)

Plan Measurement Date (December 31):	2018	2017
MTA Bridges and Tunnels proportion of the net OPEB liability	4.09 %	4.06 %
MTA Bridges and Tunnels proportionate share of the net OPEB liability	$ 801.555	$ 823.748
MTA Bridges and Tunnels covered payroll	$ 133.494	$ 112.716
MTA Bridges and Tunnels proportionate share of the net OPEB liability as a percentage of its covered payroll	600.44 %	730.82 %
Plan fiduciary net position as a percentage of the total OPEB liability	1.76 %	1.79 %

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.

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY
(Component Unit of the Metropolitan Transportation Authority)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF THE AUTHORITY'S CONTRIBUTIONS TO THE MTA OPEB PLAN
FOR THE YEARS ENDED DECEMBER 31:

(In thousands)

	2019	2018
Actuarially Determined Contribution	N/A	N/A
Actual Employer Contribution (1)	$ 29,314	$ 28,291
Contribution Deficiency (Excess)	N/A	N/A
Covered Payroll	164,110	133,494
Actual Contribution as a Percentage of Covered Payroll	17.86 %	21.19%

(1) Actual employer contribution includes the implicit rate of subsidy adjustment of $3,782 and $3,650 for the years ended December 31, 2019 and 2018, respectively.

Notes to Schedule of the MTA Bridges and Tunnels Contribution to the OPEB Plan:

Methods and assumptions used to determine contribution rates:

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%

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.