Metropolitan Transportation Authority

Audit Committee Meeting

June 2019

Audit Committee Meeting

Wednesday, 6/26/2019
8:30 - 9:00 AM ET

MTA Board Room - 20th Floor
2 Broadway

1. PUBLIC COMMENTS

2. APPROVAL OF MINUTES

Minutes of January 22, 2019 Meeting - Page 3
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3. AUDIT COMMITTEE WORK PLAN

2019 WORKPLAN - Condensed - Page 13
2019 WORKPLAN - Detailed - Page 15

4. 2018 Audited MTA Consolidated and Agency Financial Statements

5. 2018 Investment Compliance Report

6. 2018 SINGLE AUDIT REPORT

Draft - 2018 MTA Single Audit Report - Page 20

7. 2018 MANAGEMENT LETTER

Draft - 2018 MTA Consolidated Mgmt. Letter - Page 172

MINUTES OF MEETING
AUDIT COMMITTEE OF THE BOARD
TUESDAY, JANUARY 22, 2019 – 3:30 P.M.
RONAN BOARD ROOM – 20TH FLOOR
2 BROADWAY

The following were present:

Honorable:

Neal Zuckerman	**Andrew Albert**
Mitchell Pally	**Norman Brown**

M. Fucilli - MTA	**R. Foran - MTA**	**M. Fritz - Deloitte**
P. Kane - MTA	**W. Hibri - MTA**	**J. Strohmeyer - Deloitte**
M. Murray - MTA	**T. Habib - MTA**	**P. Zurita - Deloitte**
M. Garner - MTA	**N. Din - MTA**	**K. Reinhart - Deloitte**

Also in attendance:
H. Fromm - MTA

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1. PUBLIC COMMENTS PERIOD

There were no public speakers.

2. APPROVAL OF MINUTES

The minutes of the December 12, 2018 Audit Committee meeting were approved.

3. AUDIT COMMITTEE WORK PLAN

The Auditor General presented the Work Plan, noting that the Committee will meet four times in 2019 and the agenda items for these meetings are presented in the agenda book for the Committee's approval. He noted one change to the proposed plan and that is the Investment Compliance Report, originally scheduled for July, is being moved to the May meeting.

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

4. REVIEW OF 3nd QUARTER 2018 MTA CONSOLIDATED FINANCIAL STATEMENTS

Mike Fritz (Deloitte) deferred to Jill Strohmeyer to present the results of Deloitte's review of the 3rd Quarter 2018 MTA Consolidated Financial Statements. Jill said their review found the financial statements were consistent with that of the previous quarter and prior year; that there were no adjustments made to the accounts or changes in accounting policies and principles: and, overall, resulted in an "unmodified" or "clean" opinion. Chair Zuckerman requested that, for sake of clarity and transparency, the word "DRAFT" stamped across the pages of the financial statements be removed and Deloitte agreed it will be done going forward. Chair Zuckerman also asked questions relating to "Appropriations, Grants & Other Receipts;" MTA investments, changes in revenue subsidies and GASB 84, to which responses were provided by Pat Kane (MTA Comptroller) and Jill Strohmeyer.

A motion was made and seconded to accept the 3rd Quarter 2018 financial statements as presented.

5. MANAGEMENT'S REVIEW OF PENSION PLANS

Pat Kane provided the Committee with a high-level review of the six pension plans presented in the Agenda book, namely: the MTA Defined Benefit Pension Plan, MaBSTOA Pension Plan, LIRR Plan for Additional Pensions, MNR Cash Balance Plan, MTA Deferred Compensation Program, and MTA Retiree Welfare Benefits (OPEB) Plan. He noted that the pension plans financial statements as of December 31, 2017 were prepared in accordance with GAAP, using the accounting standards established by the Government Accounting Standards Board (GASB). Pat highlighted the net assets of each of the plans. He said that GASB 73 and 74 were considered in the preparation of the financial statements, with GASB 74 having an impact on the OPEB Plan financial statements, due to the recognition of unfunded liabilities. Pat also highlighted the net liability of each of the pension plans and stated that the total consolidated pensions had a net liability of $30.5 billion and net assets of $24.0 billion or a funded ratio of 78.8% and the OPEB Plan had a liability of $21.4 billion and net assets of 370 million or a funded ratio of 1.73%. Lastly, Pat presented a graph which compared MTA's Consolidated Pension plan and OPEB plan funded ratio against the funded ratios of the other 49 state public employee pension plans, noting that MTA's consolidated pension funded ratio of 78.8% fared better than most of other state pension funds. There were discussions about the MTA funded liability ratio being lower than the NY State's 94.5% funding ratio and the MTA's OPEB Plan funding which was significantly lower than most of the other states public employee funding level.

6. 2017 PENSION PLAN AUDITS

Jill Strohmeyer presented the results of Deloitte's audit of MTA Defined Benefit Pension Plan, MaBSTOA Pension Plan, LIRR Plan for Additional Pensions, MNR Cash Balance Plan, MTA Deferred Compensation Program, and MTA Retiree Welfare Benefits (OPEB) Plan as of December 31, 2017 by going through the "required communication" that was previously distributed to the committee. She discussed, among other things, the auditor's responsibilities, the objective of the financial audit, the audit procedures and risk assessments performed, the emphasis of matter paragraphs, the required supplemental information and management representation letters. She said the pension plan financial statements were prepared in accordance with Generally Accepted Accounting Principles and subjected to an audit conducted the Generally Accepted Auditing Standards; that there were no changes to the accounting policies, procedures and estimates, except for the changes required as a result of the adoption of GASB 74; no disagreements with plan's management and that their audit resulted in a "clean" or "unmodified" opinion.

Member Albert inquired why NYC Transit was not mentioned in the required communication letter and Jill responded that it is because NYC Transit's Pension Plan is part of the city's plan, which is audited by another firm. Chair Zuckerman commented on the need to highlight certain items on the supplemental information and asked Deloitte to give examples of the tests performed in the pension audit. Jill cited that focus of the audit was on investments and cited several procedures they performed which included, among others, verifying prices using third party experts, validating sales and purchase transactions, verifying accuracy of employee and employer contributions with the use of actuarial specialists and testing benefit payments. Chair Zuckerman inquired if Deloitte uses third party actuarial specialists and Jill said it uses its own specialists.

A motion was made and seconded to accept the audit reports on the financial statements of the six pension plans as of and for the year ended December 31, 2017.

7. AUDIT INNOVATION TOOL

Jill Strohmeyer introduced Chris Weaver and Harshit Sinha, members of Deloitte's Data Analytics & Innovation Group, who were here in response to the committee's request for Deloitte to provide the Committee with a sample of "tools" it uses in the audit of MTA financial statements. They then proceeded to make a video presentation about one of the "tools" Deloitte used in auditing MTA's Pension Plan data: Demographic Data Analytics. They described how the "tool" is used in performing qualitative and quantitative analysis of demographic data (date of birth, sex, hire date, salaries, beneficiaries, retirement date and others), year-to-year changes, the analysis velocity and the accuracy of the results. There were discussions about the availability of the tool, user access and the security of demographic data. Chair Zuckerman thanked Deloitte's team for the demonstration and said that, as part of the efforts to have the committee and financial staff exposed to audit trends, new tools and best practices, requests for similar presentations would be made in the future.

8. DDCR PERFORMANCE UPDATE

Michael Garner (Chief Diversity Officer) introduced Naeem Din (Deputy CDO) to make the DDCR presentation on contract closeouts and the requested information on the LIRR's Third Track Projects. Naeem referred to the materials presented in the agenda book and stated that DDCR: closed out 1,340 contracts and 28 more in progress of being closed out as of December 31, 2018; conducted 667 site visits in 2018 or an average of 56 visits per month. Naeem also discussed the goal attainment on the two LIRR Third Track Projects: the third track expansion and project management where he noted each have assigned MBE/WBE goal of 15% and the attainment to date was relatively low as the projects were at their early stages of completion. Member Pally inquired as to when the goals are usually achieved. Michael responded that it is usually towards the end of the contract and that DDCR actively monitors the contractors and their subcontractors' participation to ensure goal achievement. Michael announced that Naeem will be retiring and expressed his appreciation for his work at DDCR. The committee expressed its thanks as well.

9. 2018 AUDIT PLAN STATUS AND 2019 AUDIT PLAN

The Auditor General first introduced his direct reports: Michele Woods, Mike Prado and Wenny Formanes and thanked them and the entire audit staff for accomplishing the audit results. The AG stated that in year 2018 Audit Services made 472 recommendations to improve governance, transparency and controls at the MTA while reducing risk. He cited the achievements of the Sandy audit unit since it was established in 2013 with this Committee's approval to fulfill MTA's commitment to the fund grantors, the FTA: 112 projects completed and 296 recommendations made to improve controls and adjust submitted costs totaling $60.2 million. The AG also highlighted some of the audits completed in 2018 which included, among others, the procurements under Executive Order 168, certain aspects of the Subway Action Plan, MNR's Sleep Apnea program, and the Commuter Railroad Fare Evasion. The AG the presented the 2019 Audit Plan and described the audit plan formulation, including the audit plan sources and strategies, the risk factor considerations, the solicitation from agency officials, the independent accountants and consultation with the Managing Director and Acting Chairman. The AG said that the formal documented risk assessment process resulted in the identification of 612 auditable units of which 145 are planned to be audited in 2019. The AG provided a snapshot of some of the planned audits that are to be undertaken in 2019 under these functional areas of: Finance, Service Delivery, Safety, Procurement, Revenue, Human Resources, Technology and Capital Program. Lastly, the AG discussed the allocation of MTA Audit Services resources to each agency and the audit strategies for 2019.

Member Pally inquired if part of procurement section of audit plan included verifying that agencies are implementing the "cost containment" recommendations made by the Board. The AG confirmed that it is covered in the plan. There were discussions about the 612 auditable units and its coverage over a 5-year period, the accuracy of fare evasion estimates and focusing audits on areas that have the greatest value to the MTA.

A motion was made and seconded to approve the 2019 Audit Plan as presented.

10. EXECUTIVE SESSION

Upon motion duly made and seconded, the Committee voted to convene an executive session to discuss the sensitive data at the MTA.

11. MOTION TO ADJOURN

The Committee returned to regular session, at which time a motion was made and seconded to adjourn the meeting.

Respectfully submitted,

Michael J. Fucilli
Auditor General

MINUTES OF MEETING
AUDIT COMMITTEE OF THE BOARD
MONDAY, MAY 20, 2019 – 8:00 A.M.
RONAN BOARD ROOM – 20TH FLOOR
2 BROADWAY

The following were present:

<u>Honorable:</u>

Fernando Ferrer	**Sarah Feinberg**	
M. Fucilli - MTA	**R. Foran - MTA**	**M. Fritz - Deloitte**
P. Kane - MTA	**W. Hibri - MTA**	**J. Strohmeyer - Deloitte**
L. Kearse - MTA	**T. Habib - MTA**	**C. Hickmann - Deloitte**
M. Murray - MTA	**N. Lopez - MTA**	**P. Zurita - Deloitte**
D. Ross - MTA	**M. Moran - MTA**	
N. Gilbertson - MNR	**G. Hayden - MNR**	

Also in attendance:
H. Fromm - MTA

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1. PUBLIC COMMENTS PERIOD

There were three registered speakers but only two spoke: Ms. Rachel Fauss and Mr. Murray Bodin. Refer to the video recording of the meeting produced by the MTA and maintained in MTA records for the content of their statements.

2. APPROVAL OF MINUTES

The minutes of the January 22, 2019 Audit Committee meeting were approved, with the approval to be ratified in the presence of a quorum.

3. AUDIT COMMITTEE WORK PLAN

The Auditor General noted that there were no changes to the Work Plan. In response to Chair Ferrer's request for an update, the Auditor General stated a summary of MTA Audit activities for the past six months will be presented in the later meeting and highlighted three accomplishments to date: (1) the expanded on-board train observations in coordination with MNR/LIRR fare evasion strategies; (2) the continued audit and project monitoring of Superstorm Sandy grant-funded resiliency projects, in coordination with the MTA IG, to fulfill MTA's obligation to FTA regarding integrity monitoring services; and (3) the audit of $13 million of billings from the MTA's independent engineer which resulted in $600,000 of disallowances that was promptly reimbursed by the consultant. Chair Ferrer asked, given the results of such audits, if such audit coverage is also extended to other consultant contracts. The Auditor General responded in the affirmative, noting that a contract audit unit within the department perform audits of contactors' labor and overhead costs billings, in accordance with Federal Acquisition Regulations, grant funding requirements and contact terms.

4. MANAGEMENT REVIEW OF MTA CONSOLIDATED FINANCIAL STATEMENTS

Noemi Lopez (MTA Deputy Comptroller) presented the management's review, citing that MTA Consolidated Financial Statements as of December 31, 2018 were prepared in conformity with Generally Accepted Accounting Principles using the GASB-established standards. She stated three GASB standards were reflected in the statements with one, GASB 75, having an impact due to the recognition of unfunded OPEB liabilities. She spoke about the Total Assets and Deferred Outflows of Resources totaling $84.6 billion and Net Position of $3.9 billion; the Liabilities & Deferred Inflows and provided an explanation on the significant changes in assets and liabilities from prior year. She also provided a brief explanation on the cause of changes in Net Position, which decreased by $1.2 billion and the $258 million increase in the year-end cash balance. Lastly, she presented the comparison of the Financial Statements vs. the Financial Plan and cited that the $8.1 billion net operating deficit per the Financial Statements was $1.2 billion better than the Financial Plan because the latter did not account for the implementation of GASB 75.

5. DRAFT 2018 AUDITED FINANCIAL STATEMENTS

Mike Fritz (Deloitte Engagement Partner) introduced Jill Strohmeyer and Chris Hickmann to make the presentation on the results of their audit of the MTA Consolidated, and the individual agency, Financial Statements. Jill referred to the material entitled "Communications to the MTA Audit Committee of Matters Related to the Results of the Audit" that was previously distributed to the Committee in making her presentation. She said Deloitte has completed the audit of the financial statements of: MTAHQ, NYC Transit, FMTAC, LIRR, MNR, MTA Bus, SITROA and TBTA for the year ended December 31, 2018 and would issue the audit report upon receipt of approval from Committee. Jill the spoke about the matters contained in the communications material including, among others: Deloitte's responsibilities under the auditing standards, uncorrected misstatements (one pertaining to TBTA for $2.3 million relating to bond issuance cost and the other pertaining to NYC Transit relating to the subway cars disposed of in previous years but the $125 million net book value remained in the books), material corrected statements (she said there was none) and disagreements with management (she said there was none). She said Deloitte received full cooperation from financial management and personnel throughout the audit. She said that at the July meeting, Deloitte plans to communicate to the Committee internal control deficiencies noted during their audit. She also spoke about the emphasis of matter paragraph in the auditor report, which she said essentially pertained to the MTA's adoption of GASB 75 and its financial impact. Lastly, she discussed the critical accounting estimates related to OPEB obligations and Liabilities Arising from Injuries to Persons, including the engagement of experts in validating the estimates.

At the end of Deloitte's presentation, Chair Ferrer raised several questions regarding the audit and answers to the questions were provided by Jill Strohmeyer. The Chair's questions (marked Q) and Jill's answers to the questions (marked A), are shown below:

Q. Are the financial statements in accordance with all current accounting principles, regulations and laws?
A. Yes

Q. Are there any changes in accounting principles used in these financial statements?
A. None, except for the adoption of GASB 75 in 2018.

Q. Are any accounting treatments not preferred by the independent auditor?
A. No

Q. Were there any aggressive accounting issues?
A. No

Q. Have there been any unadjusted material differences between [independent auditor] and Management?
A. No

Q. Were there any further estimates, judgment calls, or concerns the Audit Committee should be made aware of?
A. No

Q. Are you in agreement with all material Judgments and Estimates?
A. Yes

Q. Have there been any accounting control issues or material control deficiencies?
A. No

Q. Was all information needed provided in a timely fashion?
A. Yes

Q. Are all of the independent auditor’s services in compliance with all mandated guidelines?
A. Yes

Q. Is there anything else we should be informed about, anything else we should discuss?
A. None at this time

Q. Are there any areas of concern with respect to independent auditor’s independence?
A. None

Q. Are there any new audit procedures or processes the independent auditor will be using?
A. Yes, with respect to GASB 75.

Q. Any new critical items or areas the independent auditor will be emphasizing?
A. Yes, emphasis was made on the adoption of GASB 75.

A motion was made and seconded to accept the audit reports on the financial statements of MTAHQ, NYC Transit, FMTAC, LIRR, MNR, MTA Bus, SITROA and TBTA for the year ended December 31, 2018, with the acceptance to be ratified in the presence of a quorum.

6. 2018 INVESTMENT COMPLIANCE REPORT

Jill Strohmeyer stated that during their year-end audit of the financial statements, they performed investments testing, including purchases and sales transactions and investment valuations. She indicated their tests did not identify situations or incidences where the MTA was not in compliance with respect to the State’s investments guidelines, rules and regulations.

A motion was made and seconded to accept the 2018 Investment Compliance Report, with the acceptance to be ratified in the presence of a quorum.

7. FINANCIAL INTEREST REPORT

Lamond Kearse (MTA Chief Compliance Officer) referred the Committee to the report in the agenda book relating to the Financial Disclosure Statement Filers and stated that over 6,000 individuals (employees/Board Members) are required to file this year and the MTA is working closely with the Joint Commission to determine who did not file at the May 31, 2019 deadline. He reported that each of the over 7,000 required filers last year filed their financial disclosure statements on time. Member Feinberg commented that there seemed to be a lot of filers. Lamond responded that employees whose compensation meet a certain dollar threshold or who are designated as "policy makers" are required to file. There were discussions on reducing the volume of filers, including seeking waivers especially for those whose salaries meet the threshold but who are not "policy makers."

8. ERM UPDATE AND INTERNAL CONTROL GUIDELINES

Lamond Kearse referred the Committee to the summary of ERM Committee activities presented in the agenda and cited, among other accomplishments, the GRC System Replacement which is to Go Live on May 29, 2019. With respect to ERM and Internal Control Guidelines, Lamond indicated that there were no changes or revisions to the current guidelines.

Chair Ferrer posed several questions regarding risk management, controls and policies and answers to the questions were provided by Lamond Kearse, except as otherwise noted. The Chair's questions (marked Q) and the answers to the questions (marked A), are shown below:

Q. Are there any new risks that have occurred that have not been discussed with the Audit Committee?
A. No.

Q. Are there any changes in risk management policy or procedures?
A. None, at this time.

Q. Are all risk management policies and procedures up to date and effective and are there any new policies and procedures contemplated?
A. Revisions to the Guidelines would be made to comply with the new guidelines under the updated COSO framework and internal controls.

Q. Are you satisfied with internal controls over financial reporting?
A. Yes

Q. Are there any significant deficiencies that have not been reported to the Audit Committee?
A. All significant deficiencies have been reported in our Internal Control Report.

Q. Are we comfortable with the adequacy of our Cyber Security controls and procedures?
A. Yes.

Q. Do we have any new initiatives in Cyber Security?
A. Yes, it is an ongoing process, but the Chief Information Officer would be in a better position to answer this question.

Q. Are there any new changes in accounting procedures, personnel or controls?
A. Noemi Lopez said "yes" as they related to the new GASBs adopted by the MTA.

Chair Ferrer also inquired if the $836 million of the Subway Action Plan subsidy have been booked when received, noting only $508 million of it was reflected as non-operating revenue. Noemi Lopez indicated that all have been received and the other portion was in capital revenues.

9. C0MPLIANCE WITH THE REQUIREMENTS OF THE INTERNAL CONTROL ACT

Lamond Kearse indicated that, as stated in the Internal Control Certification presented in the agenda book, the MTA is in compliance with all the provisions of the Internal Control Act for the 2017-18 period.

10. INFORMATION TECHNOLOGY REPORT

Mike Moran (Chief Information Officer) presented the major MTA IT achievements in 2018, citing among others: the completed cutover of fare media systems to new banking institutions; the complete implementation of Duo 2-factor authentication for MNR, with LIRR and NYC Transit to follow; and the upgraded PeopleSoft hardware and the establishment of a new disaster recovery site in Albany. He also discussed the major IT Goals in 2019 and briefed the Committee on the items in the report under the caption: Internal Controls, Application Realization Program Recap and Application Rationalization 2019 Program Plan. He spoke about MTA IT's continuing efforts and strategies to use resources more efficiently and cited having achieved through such strategies budget reduction savings of $181 million during 2015-2018 period, with the savings projected to be around $634 million in the 2015-2025 timeframe.

11. OPEN AUDIT RECOMMENDATIONS

Lamond Kearse referred the Committee to report on the two recommendations from the audits conducted by MTA Audit Services that remained open six months past their implementation dates. Chair Ferrer inquired about why they remained opened and their current status. Nate Gilbertson, Metro-North Director Corporate Compliance and Strategic Initiatives and Glenn Hayden, Metro-North Vice President of Engineering, addressed the open Metro-North recommendation. Hayden stated that the recommendation was to tighten controls over track conditions discovered under visual track inspections. The initial intent was to use EAM, however as this has not happened, MNR instead has implemented a two-fold strategy whereby its internal compliance department monitors all track inspections to ensure that they have been done per FRA regulations and an MW trouble desk that they created, which uses an ACCESS database to generate trouble tickets and monitors progress, needed resources and conditions. Chair Ferrer asked if Metro-North was confident that these steps will close out the recommendation and avoid further delays in implementation. In response, Hayden responded in the affirmative. David Ross, MTA Chief Procurement Officer addressed the other open recommendation pertaining to the delays in implementing the recommendation relative to the MTA's sleep apnea contracts. David stated that these contracts had been submitted and approved by the MTA Board back in January of 2017. Since these were new contracts there were many work scope issues and that pricing was left to be negotiated after the Board approvals. David reiterated to the Board that Notices to Proceed had been issued and that the vendors are providing services to employees. The contracts themselves are expected to be finalized by the end of the month.

12. EXECUTIVE SESSION

Upon motion duly made and seconded, the Committee voted to convene an executive session to discuss the pending claims and litigations and cybersecurity at the MTA.

13. MOTION TO ADJOURN

The Committee returned to regular session, at which time a motion was made and seconded to adjourn the meeting.

Respectfully submitted,

Michael J. Fucilli
Auditor General

Metropolitan Transportation Authority

2019 AUDIT COMMITTEE WORK PLAN

I. RECURRING AGENDA ITEMS	**Responsibility**
Approval of Minutes	Committee Chair & Members
Audit Work Plan	Committee Chair & Members
Pre-Approval of Audit/Non-Audit Activities	Committee Chair & Members
Follow-Up Items	Committee Chair & Members
Status of Audit Activities	Auditor General/Chief Compliance Officer/ Chief Financial Officers/MTAIG Controllers/External Auditor
Executive Sessions	As Appropriate

II. SPECIFIC AGENDA ITEMS

January 2019

Quarterly Financial Statements – 3rd Quarter 2018	External Auditor/CFOs
Pension Plans	Comptroller/External Auditor
DDCR Performance Measures	Chief Diversity Officer
MTAAS 2018/2019 Audit Plans	Auditor General
Security of Sensitive Data	Chief Information Security Officer

May 2019

Review of MTAConsolidated Financial Statements	Comptroller
2018 Audited Financial Statements	External Auditor/CFOs/Controllers
Investment Compliance Report	External Auditor
Financial Interest Reports	Chief Compliance Officer
ERM Update & Internal Control Guidelines	Chief Compliance Officer
Compliance with Internal Control Act	Chief Compliance Officer/Agency ICOs
Information Technology Report	Chief Information Security Officer
Open Audit Recommendations	Agency ICOs/Chief Compliance Officer
Contingent Liabilities/Third Party Lawsuits	General Counsels/External Auditor

June 2019

Single Audit Report	External Auditor/CFOs
Management Letter Reports	External Auditor/CFOs/Controllers

September 2019

Quarterly Financial Statements	
- 1st Quarter 2019	External Auditor/CFOs
- 2nd Quarter 2019	External Auditor/CFOs
Appointment of External Auditors	Committee Chair & Members
Deloitte Audit Approach Plans	External Auditor
Review of MTA/IG's Office	External Auditor/IG
ERM Update, Ethics and Compliance Program	Chief Compliance Officer
MTAAS 2019 Audit Plan Status Report	Auditor General
Security of Sensitive Data	Chief Information Security Officer
DDCR Performance Measures	Chief Diversity Officer
Review of Audit Committee Charter	CCO and Committee Chair
Annual Audit Committee Report	Committee Chair

2019 AUDIT COMMITTEE WORK PLAN

I. RECURRING AGENDA ITEMS

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.

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 2019

Quarterly Financial Statements - 3rd Quarter 2018
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 2018.

Pension Plans

i Management's Review of MTA-Managed/Controlled Pension Plan Financial Statements
The MTA Comptroller will present a management's review of the 2017 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.

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.

MTAAS 2018/2019 Audit Plans

i. 2018 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 2018.

ii 2019 Audit Plan

A discussion by Audit Services of the areas scheduled to be reviewed in 2019 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.

Security of Sensitive Data

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

MAY 2019

Management's Review of MTA Consolidated Financial Statements

The MTA Comptroller will present a management's review of the 2018 MTA consolidated financial statements, including changes in capital, net assets, other assets and operating revenues and expenses.

2018 Audited Financial Statements

The MTA public accounting firm will review the results and conclusions of their examination of the 2018 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.

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.

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.

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

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

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

JUNE 2019

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.

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.

SEPTEMBER 2019

Quarterly Financial Statements – 1st and 2nd Quarter 2019
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 and second quarter of 2019.

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

Audit Approach Plans/Coordination with External Auditors
Representatives of MTA's public accounting firm will review their audit approach for the 2019 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 the MTA Inspector General's Office
Representatives of MTA's public accounting firm will provide the results of their review of the MTA/IG's operation to ensure compliance with applicable office regulations, rules, policies and procedures.

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

MTAAS 2019 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.

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

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.

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 2019 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 2019. This report is prepared in compliance with the Audit Committee's Charter. After Committee review and approval, the Committee Chair will present the report to the full MTA Board.

DRAFT

Metropolitan Transportation Authority
(A Component Unit of the State of New York)

Independent Auditors' Report on Consolidated Financial Statements as of and for the Years Ended December 31, 2018 and 2017, Required Supplementary Information, Supplementary Information, for the Year Ended December 31, 2018 and Independent Auditors' Reports on Internal Controls and Compliance, and Schedule of Expenditures of Federal Awards and Schedule of State of New York Department of Transportation Assistance Expended, Schedule of Findings and Questioned Costs, and Summary Schedule of Prior Audit Year Findings for the Year Ended December 31, 2018

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METROPOLITAN TRANSPORTATION AUTHORITY
(A Component Unit of the State of New York)

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METROPOLITAN TRANSPORTATION AUTHORITY
(A Component Unit of the State of New York)

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INDEPENDENT AUDITORS' REPORT

To the Members of the Board of
Metropolitan Transportation Authority

Report on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of net position of the Metropolitan Transportation Authority (the "MTA"), a component unit of the State of New York, as of December 31, 2018 and 2017, and the related consolidated statements of revenues, expenses and changes in net position and consolidated cash flows for the years then ended, and the related notes to the consolidated financial statements, which collectively comprise the MTA's consolidated financial statements as listed in the table of contents.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated 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 consolidated 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 consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the consolidated 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 consolidated 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 consolidated 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 consolidated financial statements referred to above present fairly, in all material respects, the consolidated net position of the MTA as of December 31, 2018 and 2017, and the respective changes in the consolidated net position and consolidated 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 consolidated 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 opinion is not modified with respect to this matter.

As described in Note 2 to the financial statements, in 2018, the MTA adopted Governmental Accounting Standards Board ("GASB") Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. 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's Net Pension Liability and Related Ratios for the Single Employer Pension Plans, the Schedule of the MTA's Proportionate Share of Net Pension Liabilities of Cost-Sharing Multiple-Employer Pension Plans, the Schedule of the MTA's Contributions for All Pension Plans, the Schedule of Changes in the MTA's Net OPEB Liability and Related Ratios, and the Schedule of the MTA's Contributions to the OPEB Plan, as listed in the table of contents, be presented to supplement the consolidated financial statements. Such information, although not a part of the consolidated financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the consolidated 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 consolidated financial statements, and other knowledge we obtained during our audits of the consolidated 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 MTA's consolidated financial statements. The Schedule of Consolidated Reconciliation Between Financial Plan and Financial Statements, Schedule of Consolidated Subsidy Accrual Reconciliation Between Financial Plan and Financial Statements, and Schedule of Financial Plan to Financial Statements Reconciliation are presented for the purposes of additional analysis and are not a required part of the consolidated financial statements.

The Schedule of Consolidated Reconciliation Between Financial Plan and Financial Statements, Schedule of Consolidated Subsidy Accrual Reconciliation Between Financial Plan and Financial Statements, and Schedule of Financial Plan to Financial Statements Reconciliation, are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the consolidated financial statements. Such information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, such supplementary information is fairly stated, in all material respects, in relation to the consolidated financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated May 20, 2019 on our consideration of the MTA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering MTA's internal control over financial reporting and compliance.

May 20, 2019

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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, 2018 AND 2017

($ In Millions, except as noted)

OVERVIEW OF THE CONSOLIDATED FINANCIAL STATEMENTS

Introduction

This report consists of five parts: Management's Discussion and Analysis ("MD&A"), Consolidated Financial Statements, Notes to the Consolidated Financial Statements, Required Supplementary Information, 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, 2018 and 2017. 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.

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

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 Capital Construction Company ("MTA Capital Construction") provides oversight for the planning, design and construction of current and future major MTA system-wide expansion projects.
- MTA Bus Company ("MTA Bus") operates certain bus routes in areas previously served by private bus operators pursuant to franchises granted by the City of New York.
- MTAHQ, MTA Long Island Rail Road, MTA Metro-North Railroad, MTA Staten Island Railway, FMTAC, MTA Capital Construction, and MTA Bus, collectively are referred to herein as MTA. MTA Long Island Rail Road and MTA Metro-North Railroad are referred to collectively as the Commuter Railroads.

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

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

CONDENSED CONSOLIDATED FINANCIAL INFORMATION AND CONDENSED CONSOLIDATED 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, 2018 and 2017. 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

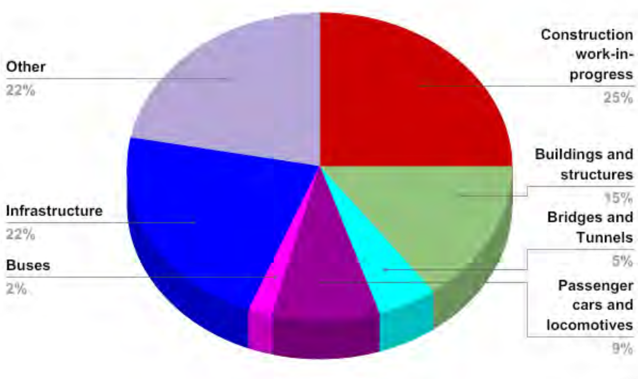
Capital assets include, but are not limited to: bridges, structures, tunnels, construction of buildings and the acquisition of buses, equipment, passenger cars, and locomotives.

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.

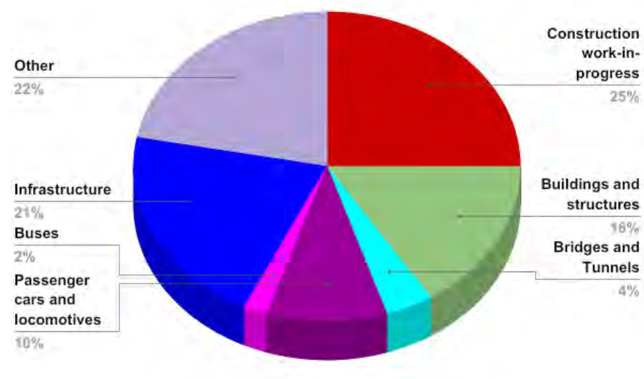
Deferred outflows of resources reflect: changes in fair market values of hedging derivative instruments that are determined to be effective, unamortized loss on refunding, deferred outflows from pension activities, and deferred outflows from OPEB activities.

(In millions)	December 31, 2018	December 31, 2017	December 31, 2016	Increase / (Decrease) 2018 - 2017	Increase / (Decrease) 2017 - 2016
Capital assets — net (see Note 6)	$ 72,511	$ 68,060	$ 64,518	$ 4,451	$ 3,542
Other assets	7,827	8,533	9,268	(706)	(735)
Total Assets	80,338	76,593	73,786	3,745	2,807
Deferred outflows of resources	4,360	3,687	3,832	673	(145)
Total assets and deferred outflows of resources	$ 84,698	$ 80,280	$ 77,618	$ 4,418	$ 2,662

Capital Assets, Net - December 31, 2018



Capital Assets, Net - December 31, 2017



Significant Changes in Assets and Deferred Outflows of Resources Include:

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.

December 31, 2017 versus December 31, 2016

- Net capital assets increased at December 31, 2017 by $3,542 or 5.5%. There was an increase in other capital assets of $2,584, an increase in infrastructure of $1,756, construction in progress of $722, an increase in bridges and tunnels of $288, an increase in buildings and structures of $258, an increase in buses of $167, an increase in land of $14, and a decrease in passenger cars and locomotives of $3. This was offset by a net increase in accumulated depreciation of $2,244. 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 $735 or 7.9%. The major items contributing to this change include:
  - A decrease in cash of $449 from net cash flow activities.
  - A decrease in current and non-current receivables of $505 primarily due to a decrease in subsidies from New York City for MTA New York City Transit and MTA Bus of $122, a decrease in Federal and State grants for capital projects of $101, a net decrease in other subsidies of $21 and a decrease in receivables from New York State for Service Contract Bonds of $71. There was also a net decrease in other receivables of $190 primarily due to the receipt of reinsurance recoveries related to Tropical Storm Sandy.
  - An increase in investments of $156 due to higher debt service funds and an increase in unspent proceeds from the issuances of Transportation Revenue Bonds, Dedicated Tax Funds and Bond Anticipation Notes in 2017.
  - A net increase in various other current and noncurrent assets of $63.

- Deferred outflows of resources decreased by $145 or 3.8%. This decrease was primarily due from lower deferred outflows related to pensions of $381 due to changes in the actuarially determined calculations for the pension plans related to changes in certain actuarial assumptions and the difference between expected and actual earnings on plan investments. There was also a decrease in the fair value of derivative instruments of $31 offset by an increase in deferred outflows for unamortized losses on refundings of $267.

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

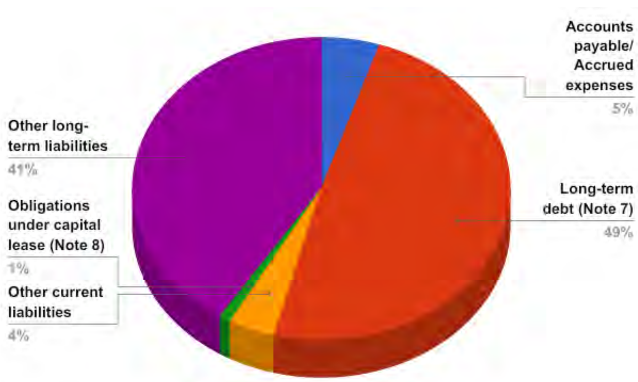
Current liabilities include: accounts payable, accrued expenses, current portions of long-term debt, capital lease obligations, pollution remediation liabilities, unredeemed fares and tolls, and other current liabilities.

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

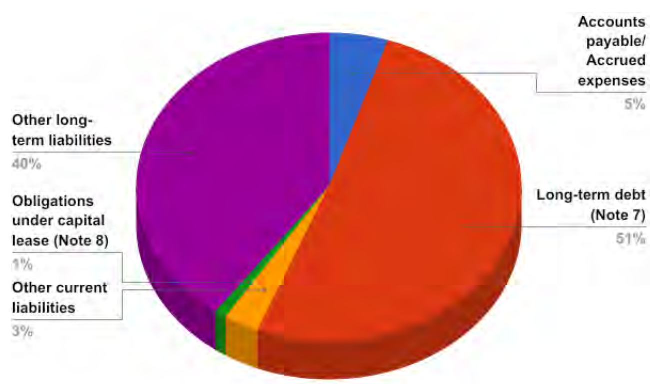
Deferred inflows of resources reflect unamortized gains on refunding, pension related deferred inflows, and deferred inflows from OPEB activities.

(In millions)	December 31, 2018	December 31, 2017	December 31, 2016	Increase/(Decrease) 2018 - 2017	Increase/(Decrease) 2017 - 2016
Current liabilities	$ 7,609	$ 6,246	$ 6,003	$ 1,363	$ 243
Non-current liabilities	72,022	68,304	65,684	3,718	2,620
Total liabilities	79,631	74,550	71,687	5,081	2,863
Deferred inflows of resources	1,114	506	324	608	182
Total liabilities and deferred inflows of resources	$ 80,745	$ 75,056	$ 72,011	$ 5,689	$ 3,045

Total Liabilities - December 31, 2018



Total Liabilities - December 31, 2017



Significant Changes in Liabilities and Deferred Inflows of Resources Include:

<u>December 31, 2018 versus December 31, 2017</u>

- 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.

December 31, 2017 versus December 31, 2016

- Current liabilities increased by $243 or 4.1%. The net increase in current liabilities was primarily due to an increase in accrued expenses of $299. The increase in accounts payable was a result of a net increase in employee related accruals of $133, and a net increase of $212 in other accrued expense, due to higher operating accruals. This was offset by a decrease in interest payable mainly due to the refunding of other indebtedness and debt service payments made during 2017 of $22 and a decrease in capital accruals of $24. In addition, there was an increase in unearned revenues of $23, largely due to unused fare cards and school fare subsidies, an increase in accounts payable due to vendors of $81, and an increase in loans payable to New York State Power Authority of $14. This was offset by a decrease in the current portion of long-term debt of $171, primarily from debt service payments made in 2017 and a decrease in the current portion of pollution remediation projects of $3.
- Non-current liabilities increased by $2,620 or 4.0%. This increase was mainly due:
  - An increase in the non-current portion of long-term debt of $1,347 primarily due to 2017 bond issuances (See Note 7).
  - An increase in postemployment benefits other than pension liability ("OPEB") of $1,575 resulting from estimates of actuarial calculations as required by GASB Statement No. 45 (See Note 5).
  - An increase in estimated liability arising from injuries to persons (Note 10) of $410 due to revised calculations of the workers' compensation reserve.
  - An increase in the non-current portion of loans payable of $100 due to the Customer Installation Commitments ("CIC") with New York Power Authority ("NYPA").
  - A decrease in pension liability of $878, resulting from actuarial calculations as required by GASB Statement No. 68 (see Note 4).
  - A net increase in other various non-current liabilities of $66.
- Deferred inflows of resources increased by $182 or 56.2%, primarily due to higher deferred inflows related to pensions of $185 as a result of changes in the actuarially determined calculations for the pension plans for changes in certain actuarial assumptions, the difference between expected and actual earnings on plan investments and differences between expected and actual experience. This was offset by 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)	
	2018	2017	2016	2018 - 2017	2017 - 2016
Net investment in capital assets	$ 30,000	$ 28,250	$ 25,756	$ 1,750	$ 2,494
Restricted for debt service	454	516	352	(62)	164
Restricted for claims	206	182	178	24	4
Restricted for other purposes	1,230	983	935	247	48
Unrestricted	(27,937)	(24,707)	(21,614)	(3,230)	(3,093)
Total Net Position	$ 3,953	$ 5,224	$ 5,607	$ (1,271)	$ (383)

Significant Changes in Net Position Include:

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%.

December 31, 2017 versus December 31, 2016

At December 31, 2017, total net position decreased by $383 or 6.8%, when compared with December 31, 2016. This change is a result of net non-operating revenues of $4,979 and appropriations, grants and other receipts externally restricted for capital projects of $2,662 offset by operating losses of $8,177. During 2017, MTA Bridges and Tunnels changed its method of amortizing bond premiums and discounts to the consistent yield method, which is a more preferable accounting principle than the principle used in previous years. The change in method resulted in an increase in 2017 beginning net position of $153. See Note 2 for further details.

The net investment in capital assets increased by $2,494 or 9.7%. Funds restricted for debt service, claims and other purposes increased by $216 or 14.7% in the aggregate, mainly due to scheduled debt service payments. Unrestricted net position decreased by $3,093 or 14.3%.

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

(In millions)	December 31, 2018	December 31, 2017	December 31, 2016	Increase/(Decrease) 2018 - 2017	Increase/(Decrease) 2017 - 2016
Operating revenues					
Passenger and tolls	$ 8,131	$ 8,084	$ 7,899	$ 47	$ 185
Other	605	589	621	16	(32)
Total operating revenues	8,736	8,673	8,520	63	153
Non-operating revenues					
Grants, appropriations and taxes	6,407	5,722	5,972	685	(250)
Other	839	782	756	57	26
Total non-operating revenues	7,246	6,504	6,728	742	(224)
Total revenues	15,982	15,177	15,248	805	(71)
Operating expenses					
Salaries and wages	6,300	5,968	5,627	332	341
Retirement and other employee benefits	2,447	2,742	2,892	(295)	(150)
Postemployment benefits other than pensions	1,749	2,155	2,146	(406)	9
Depreciation and amortization	2,679	2,611	2,447	68	164
Other expenses	3,666	3,374	3,036	292	338
Operating expenses	16,841	16,850	16,148	(9)	702
Net expenses related to asset impairment	-	-	2	-	(2)
Total operating expenses	16,841	16,850	16,150	(9)	700
Non-operating expenses					
Interest on long-term debt	1,460	1,517	1,463	(57)	54
Loss on disposal of subway cars	125	-	-	125	-
Other net non-operating expenses	8	8	7	-	1
Total non-operating expenses	1,593	1,525	1,470	68	55
Total expenses	18,434	18,375	17,620	59	755
Loss before appropriations, grants and other receipts externally restricted for capital projects	(2,452)	(3,198)	(2,372)	746	(826)
Appropriations, grants and other receipts externally restricted for capital projects	2,302	2,662	2,168	(360)	494
Change in net position	(150)	(536)	(204)*	386	(332)
Net position, beginning of year	5,224	5,607	5,811	(383)	(204)
Restatement of beginning net position - adoption of GASB No. 75	(1,121)	-	-	(1,121)	-
Cumulative effect of change in accounting principle	-	153	-	(153)	153
Net position, end of year	$ 3,953	$ 5,224	$ 5,607	$ (1,271)	$ (383)

*During 2017, MTA Bridges and Tunnels changed to a more preferable method of amortizing bond premiums and discounts, constant yield. This change in method is accounted for on a prospective basis. Had the new accounting principle been used for all comparative periods presented within, the 2016 Change in Net Position would have been $(168).

Revenues and Expenses, by Major Source:

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

Years ended December 31, 2017 versus 2016

● Total operating revenues increased by $153 or 1.8%. This increase was mainly due to an increase in fare and toll revenue of $185 primarily due to higher subway ridership and an increase in vehicle crossings for the year ended December 31, 2017, when compared to the year ended December 31, 2016. This increase was offset by a decrease in other operating revenues of $32 due to lower advertising revenues collected on behalf of all agencies.

● Total non-operating revenues decreased by $224 or 3.3%:

- Total grants, appropriations, and taxes decreased by $250. This was due to a decrease in tax-supported subsidies from New York City and local service areas of $239 mainly due to lower Urban Tax of $232 and Mortgage Recording Tax subsidies of $7. Tax-supported subsidies from New York State decreased by $5 primarily due to a decrease in Mass Transportation Trust Fund of $28 and a decrease in MTA Aid of $2 offset by an increase in Payroll Mobility Tax of $28. Various other subsidies decreased by $6 primarily due to a decrease in New York State Service Contract subsidy of $4 and a decrease in Build America subsidy of $2.

- Other non-operating revenues increased by $26 primarily due to a net increase in non-operating revenues of $40, an increase in station maintenance, operation and use assessments of $3 and an increase in subsidies from New York City of $5 for MTA Bus and MTA Staten Island Railway. This was offset by a decrease in in subsidies from the Connecticut Department of Transportation for the MTA Metro-North Railroad of $22.

● Labor costs increased by $200 or 1.9%. The major changes within this category are:

- Salaries, wages and overtime increased by $341 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 increased by $9 based on changes in the actuarial estimates.

- Retirement and employee benefits decreased by $150 primarily due to higher workers' compensation reserve requirements based upon the current actuarial valuation.

- Non-labor operating costs increased by $500 or 9.1%. The variance was primarily due to:
  - An increase in claims arising from injuries to persons of $60 based on the most recent actuarial valuations.
  - An increase in depreciation of $164 primarily due to more assets placed in service in the current year.
  - An increase in insurance of $18 primarily due to a new OCIP premium that was added in 2016 for the East Side Access project.
  - An increase in maintenance and other contracts by $69 and professional service contracts of $97 due to changes in consulting services requirements.
  - An increase in electric power of $23 and fuel of $26 due to changes in rates and consumption.
  - An increase in material and supplies by $3, mainly due to revised maintenance and repairs requirements for transit and commuter systems.
  - An increase in paratransit service contracts of $9 primarily due to higher paratransit taxi expenses.
  - A net increase in other various expenses of $31 mainly due to higher operating expenses.
- Total net non-operating expenses increased by $56 or 3.8% ·primarily due to increases in interest on long-term debt of $54. This was partially offset by a cumulative effect of change in accounting principle. During 2017, MTA Bridges and Tunnels changed its method of amortizing bond premiums and discounts on bonds to the constant yield method, which lowered interest expense.
- Cumulative effect of change in accounting principle increased by $153. During 2017, MTA Bridges and Tunnels changed its method of amortizing bond premiums and discounts on bonds to the constant yield method, which is a more preferable accounting principle than the principle used in previous years. This change in method resulted in an increase in 2017 beginning net position of $153.
- Appropriations, grants and other receipts externally restricted for capital projects increased by $494 or 22.8%, 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. In order to achieve maximum efficiency and success in its operations, the MTA must identify economic trends and continually implement strategies to adapt to changing economic conditions.

Preliminary MTA system-wide utilization in 2018 decreased relative to 2017, with ridership down by 80.7 million trips (3.1%). The decrease is driven by Subway ridership, which declined by 47.3 million trips (2.7%), and MTA New York City Transit Bus ridership, which declined by 33.3 million trips (5.5%). In addition, MTA Bus ridership declined by 766 thousand trips (0.6%) and MTA Staten Island Railway ridership declined by 82 thousand trips (1.8%). Commuter rail experienced a small increase in ridership in 2018, with MTA Long Island Rail Road ridership increasing by 607 thousand trips (0.7%) and MTA Metro-North Railroad ridership increasing by 58 thousand trips (0.1%). The overall decline in ridership in 2018 was comprised of a 27.6 million decline in the first quarter, an 18.2 million decline in the second quarter, a 21.4 million decline in the third quarter and a 13.5 million decline in the fourth quarter, all compared with the corresponding quarter in 2017. The decline in bus ridership is consistent with a trend that began in 2009 and has been observed nationally, while declining subway ridership is a more recent trend, beginning in the third quarter of 2016; recent bus and subway ridership trends have been attributed to increased fare evasion, planned subway service changes to accommodate construction and maintenance/repair work, increase in use of for-hire vehicle services, and increases in telecommuting and the use of e-commerce. Vehicle traffic at MTA Bridges and Tunnels facilities increased by 12.3 million crossings (4.0%) in 2018 compared to 2017. This increase was comprised of a 2.5 million increase in the first quarter, a 4.1 million increase in the second quarter, a 2.7 million increase in the third quarter, and a 3.1 million increase in the fourth quarter, all compared to the corresponding quarter in 2017. Congestion pricing in Manhattan has been approved.

Seasonally adjusted non-agricultural employment in New York City for the fourth quarter was higher in 2018 than in 2017 by 67.3 thousand jobs (1.5%). On a quarter-to-quarter basis, New York City employment has increased in each of the last thirty-three quarters – the last decline occurred in the third quarter of 2010 – and is higher than at any time since 1950, when non-agricultural employment levels for New York City were first recorded by the Bureau of Labor Statistics.

National economic growth, as measured by Real Gross Domestic Product ("RGDP"), expanded at an annualized rate of 2.6% in the fourth quarter of 2018 according to the most recent advance estimate released by the Bureau of Economic Analysis ("BEA"). The increase in RGDP reflected positive contributions from personal consumption expenditures, nonresidential fixed investment, exports, private inventory investment, and federal government spending; these were partially offset by negative contributions from residential fixed investment, and state and local government spending. Imports, which are a subtraction in the Gross Domestic Product ("GDP") calculation, increased. The deceleration in RGDP growth, relative to the third quarter's revised 3.4% growth rate, reflected a deceleration in private inventory investment, personal consumption expenditures and federal government spending, as well as a downturn in state and local government spending; these were partially offset by an acceleration nonresidential fixed investment, as well as an upturn in exports and a smaller increase in imports.

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 2018, with the metropolitan area index increasing by 1.8 %, while the national index increased by 2.2%, when compared with the fourth quarter of 2017. A 5.3% increase in the regional price of energy products, along with a 3.9% national increase, impacted overall inflation; in the metropolitan area, the CPI-U exclusive of energy products increased by 1.6%, while nationally, inflation exclusive of energy products was 2.1%. The spot price for New York Harbor conventional gasoline fell by 3.8%, from an average price of $1.77 per gallon to an average price of $1.70 per gallon, between the fourth quarters of 2017 and 2018.

The Federal Open Market Committee ("FOMC") raised its target for the Federal Funds rate four times in 2018, with the target range set at 1.5% to 1.75% in March, 1.75% to 2.0% in June, 2.0% to 2.25% in September, and 2.25% to 2.5%—the current target level—in December. This was a slight acceleration in rate increases compared to 2017, when the target level was increased three times. The December increase was in view of continued labor market strength and rising economic activity, as job gains were strong and the unemployment rate remained low. Household spending continued to grow strongly, while growth in business fixed investment moderated from its rapid rate of growth in the first three quarters of 2018. Overall inflation and inflation for items other than food and energy remained close to 2 percent and indicators of longer-term inflation expectations were little changed. The FOMC expects that the economic expansion will be sustained, labor market conditions will remain strong, and inflation will remain near the 2 percent objective. In light of muted inflationary pressures and global economic and financial developments, the FOMC has indicated its patience in determining the timing and size of future rate adjustments, assessing realized and expected economic conditions relative to its dual mandate of maximizing employment and targeting 2 percent inflation.

The influence of the Federal Reserve monetary policy on the mortgage market is a matter of interest to the MTA, since variability of mortgage rates can affect the number of real estate transactions and thereby impact receipts from the Mortgage Recording Tax ("MRT") and Urban Tax, two important sources of MTA revenue. Mortgage Recording Tax collections for the fourth quarter of 2018 were lower than the fourth quarter of 2017 by $2.5 (2.2%); receipts in the fourth quarter of 2018 were $8.8 (7.5%) lower than receipts from the third quarter of 2018. Despite the gradual overall recovery of MRT receipts that began in 2012, average monthly receipts in 2018 remain $26.9 (42.3%) lower than the monthly average for 2006, just prior to the steep decline in Mortgage Recording Tax revenues. MTA's Urban Tax receipts – which are based on commercial real estate transactions and mortgage recording activity within New York City, and can vary significantly from quarter to quarter based on the timing of exceptionally high-priced transactions – were $11.2 (7.7%) higher in the fourth quarter of 2018 than receipts for the fourth quarter of 2017; receipts in the fourth quarter of 2018 were $12.2 (7.2%) lower than receipts from the third quarter of 2018. Average monthly receipts in 2018 were $19.0 (25.8%) lower than the monthly average for 2007, just prior to the steep decline in Urban Tax revenues.

Results of Operations

MTA Bridges and Tunnels - For the year ended December 31, 2018, operating revenues increased by $67.6 to $1,999.6 as compared to December 31, 2017. Traffic in 2018 set a new record with 322.3 million crossings, surpassing the previous high of 310 million crossings from the previous year. MTA Bridges and Tunnels tolls accounted for 98.8% and 98.9% of operating revenues in 2018 and 2017, 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-Z Pass customers.

The E-ZPass electronic toll collection system continued to facilitate management of high traffic volumes. The total average market share as of December 31, 2018 was 94.4% compared to 90.4% as of December 31, 2017. The average weekday market shares for passenger and commercial vehicles were 95.1% and 91.5% for 2018 and 2017, respectively.

MTA New York City Transit - Total revenue from fares was $4,447 in 2018, a decrease of $40, or 0.9%, compared to 2017. This decrease was due mostly to lower ridership trends. Total ridership was 2,259 million passengers in 2018, a decrease of 80 million, or 3.4%, from 2017.

MTA Long Island Rail Road – Total operating revenue for the year ended December 31, 2018 was $789.4, which was higher by $8.8 or 1.1% compared to the year ended December 31, 2017. For the same comparative period, operating expenses were higher by $70.0 or 3.7%, totaling $2.0 billion for the year ended December 31, 2018.

MTA Metro-North Railroad – For the year ended December 31, 2018, operating revenues totaled $792.1, an increase of $1.2 or 0.2% compared to 2017. During the same period, operating expenses increased by $59.2 or 3.6% to $1,683.1. Fare revenue for 2018 increased by 0.9% to $740.3 compared to 2017. Passenger fares accounted for 93.4% and 92.7% of operating revenues in 2018 and 2017, respectively. The remaining revenue represents collection of rental income from stores in and around passenger stations, and revenue generated from advertising.

The MTA receives the equivalent of four quarters of Metropolitan Mass Transportation Operating Assistance (“MMTOA”) receipts each year, with the state advancing the first quarter of each succeeding calendar year’s receipts in the fourth quarter of the current year. This results in little or no Metropolitan Mass Transportation Operating Assistance receipts being received during the first quarter of each calendar year. The MTA has made other provisions to provide for cash liquidity during this period. During March 2016, the State appropriated $1.6 billion in MMTOA funds. There has been no change in the timing of the State’s payment of, or MTA’s receipt of, Dedicated Mass Transportation Trust Fund (“MTTF”) receipts, which MTA anticipates will be sufficient to make monthly principal and interest deposits into the Debt Service Fund for the Dedicated Tax Fund Bonds. The total MRT for the year ended December 31, 2018 was $447.9 compared to $452.8 at December 31, 2017.

Capital Programs

At December 31, 2018, $20,317 had been committed and $7,517 had been expended for the combined 2015-2019 MTA Capital Programs and the 2015-2019 MTA Bridges and Tunnels Capital Program, and $27,832 had been committed and $22,501 had been expended for the combined 2010-2014 MTA Capital Programs and the 2010-2014 MTA Bridges and Tunnels Capital Program, and $24,103 had been committed and $23,684 had been expended for the combined 2005-2009 MTA Capital Programs and the 2005-2009 MTA Bridges and Tunnels Capital Program.

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

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

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

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

By December 31, 2018, the revised 2015-2019 Capital Programs provided $33,273 in capital expenditures, of which $16,742 relates to ongoing repairs of, and replacements to, the transit system operated by MTA New York City Transit and MaBSTOA and the rail system operated by MTA Staten Island Railway; $5,323 relates to ongoing repairs of, and replacements to, the commuter system operated by MTA Long Island Rail Road and MTA Metro-North Railroad; $7,652 relates to the expansion of existing rail networks for both the transit and commuter systems to be managed by MTA Capital Construction; $243 relates to Planning and Customer Service; $376 relates to MTA Bus Company initiatives; and $2,936 in capital expenditures for ongoing repairs of, and replacements to, MTA Bridges and Tunnels facilities.

The combined funding sources for the revised 2015–2019 MTA Capital Programs and the 2015-2019 MTA Bridges and Tunnels Capital Program, include $7,968 in MTA Bonds, $2,936 in MTA Bridges and Tunnels dedicated funds, $8,640 in funding from the State of New York, $7,308 in Federal Funds, $2,666 from City Capital Funds, $2,145 in pay-as-you-go ("PAYGO") capital, $1,018 from asset sale/leases, and $592 from Other Sources.

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

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

In May 2017, the MTA Board approved an amendment to the 2010-2014 Capital Programs to reflect scope transfers and consolidation between the approved capital programs, and to reflect reductions to the MTA Superstorm Sandy capital projects to match current funding assumptions. This amendment, which provided $29,237 in capital expenditures for the Transit and Commuter systems, was deemed approved by the CPRB as submitted on July 31, 2017. The amended 2010-2014 MTA Bridges and Tunnels Capital Program, which provided $2,784 in capital expenditures, was not subject to CPRB approval. By December 31, 2018, the 2010-2014 MTA Capital Programs reflected an overall decrease of $424 primarily due to reallocation of funds within the East Side Access and Regional Investment programs. Of the $31,597 in capital expenditures, $11,365 relates to ongoing repairs of, and replacements to, the transit system operated by MTA New York City Transit and MaBSTOA and the rail system operated by MTA Staten Island Railway; $3,882 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, $2,025 in MTA Bridges and Tunnels dedicated funds, $7,594 in Federal Funds, $132 in MTA Bus Federal and City Match, $719 from City Capital Funds, and $1,322 from other sources. Also included is $770 in State Assistance funds added to re-establish a traditional funding partnership. The funding strategy for Superstorm Sandy repair and restoration assumes the receipt of $6,329 in insurance and federal reimbursement proceeds (including interim borrowing by MTA to cover delays in the receipt of such proceeds), $235 in pay-as-you-go capital, supplemented, to the extent necessary, by external borrowing of up to $988 in additional MTA and MTA Bridges and Tunnels bonds.

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

As last amended by the MTA Board, the 2005–2009 MTA Capital Programs and the 2005–2009 MTA Bridges and Tunnels Capital Program, provided for $23,717 in capital expenditures. By December 31, 2018, the 2005-2009 MTA Capital Programs budget increased by $684 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 $24,401 now provided in capital expenditures, $11,516 relates to ongoing repairs of, and replacements to the transit system operated by MTA New York City Transit and MaBSTOA and the rail system operated by MTA Staten Island Railway; $3,716 relates to ongoing repairs of, and replacements to, the commuter system operated by MTA Long Island Rail Road and MTA Metro-North Railroad; $168 relates to certain interagency projects; $7,721 relates generally to the expansion of existing rail networks for both the transit and commuter systems to be managed by the MTA Capital Construction Company (including the East Side Access, Second Avenue Subway and No. 7 subway line) and a security program throughout MTA's transit network; $1,127 relates to the ongoing repairs of, and replacements to, bridge and tunnel facilities operated by MTA Bridges and Tunnels; and $152 relates to capital projects for the MTA Bus.

The combined funding sources for the MTA Board-approved 2005–2009 MTA Capital Programs and 2005–2009 MTA Bridges and Tunnels Capital Program include $10,955 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, $7,836 in Federal Funds, $2,838 in City Capital Funds, and $1,322 from other sources.

CURRENTLY KNOWN FACTS, DECISIONS, OR CONDITIONS

The 2018 November Financial Plan

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

- *Hold projected fare/toll increases to 4% in 2019 and 2021*. The November Plan continues to project net 4% biennial fare/toll increases (the equivalent of 2% per year), which is lower than the projected two-year inflation rates of 5.3% and 4.7% in 2019 and 2021, respectively. Consistent with recent financial plans, a March 1st implementation was assumed for both the 2019 and 2021 increases. The annualized yield of these increases was projected in the November Plan to be $316 million and $321 million, respectively.
- *Achieve annually recurring savings targets*. Since the February Plan 2018, nearly $1.9 billion in recurring savings have been identified over the November Plan period. The November Plan maintains the commitment to fully identify the savings goals targeted in the earlier Financial Plans, but did not include any additional savings targets.
- *Maintenance of prior plan investments*. The November Plan maintains major investments for the MTA Long Island Rail Road "Forward" Plan, the "Bus Plans" at MTA New York City Transit and MTA Bus, and the MTA Metro-North Railroad "Way Ahead" Plan. Also included is maintenance of the Subway Action Plan, which will be funded from Phase 1 of congestion pricing, using fees from for-hire vehicle trips.
- *Additional maintenance and operations investments*. Another $216 million over the November Plan period will be invested in additional maintenance and operating needs, including:
  - At MTA New York City Transit, replacing, modifying, updating and maintaining various components of HVAC systems.
  - At MTA Metro-North Railroad, installation of various components at Grand Central Terminal to ensure safety and state of good repair of building systems; update to dry-water line systems at stations; enhanced diesel fleet maintenance; and indefinite extension of weekend bus service between Rockland County and the Hudson and Harlem Lines in Westchester County.

- At MTA Long Island Rail Road and MTA Metro-North Railroad, increase of support for weather-related operational coverage requirements.

- *Bus and subway service guidelines*. Bus and subway service guidelines, which have been reviewed and approved by the MTA Board, are used to maintain an appropriate level of service based upon actual ridership on a route. The guidelines provided an objective standard of maximum loads for different times of day, and are intended to minimize the occurrences when buses or trains are either overcrowded or underutilized. During years of ridership growth, these service guidelines were the basis for increased service where it was warranted, but over the past several years as ridership has declined, reductions based on service guideline standards had been deferred. With ridership levels not rebounding, the November Plan included MTA New York City Transit proposed service guideline adjustments beginning in 2020 that are projected to result in savings of $41 million annually, with reductions of $10 million for subway service and $31 million for bus service.

Tropical Storm Sandy Update

The total allocation of emergency relief funding from the Federal Transit Administration ("FTA") to MTA in connection with Superstorm Sandy to date is $5.83 billion, including $1.599 billion allocated on September 22, 2014 through a competitive resiliency program. FTA Emergency Relief Grants totaling $4.803 billion have been executed, including six grants in the amounts of $194, $886, $685, $344, $788, and $1,090, respectively, for repair/local priority resiliency and fourteen grants for competitive resiliency totaling $816. As of December 31, 2018, MTA has drawn down a total of $2.101 billion in grant reimbursement for eligible operating and capital expenses. The balance of funds to be drawn down from all twenty grants is available to MTA for reimbursement of eligible expenses as requisitions are submitted by MTA and approved by FTA. Additional requisitions are in process. At MTA and Amtrak's request, in April 2018, FTA transferred $14 of MTA's emergency relief allocation to the Federal Railroad Administration ("FRA") to allow Amtrak to execute a portion of MTA Long Island Rail Road's Competitive Resilience scope.

MTA expects to submit grant requests for the remainder of its FTA emergency relief allocation as follows: $891 in Federal Fiscal Year 2019 and $118 in Federal Fiscal Year 2020.

Labor Update

During the fourth quarter of 2018, labor unions representing employees at various MTA agencies reached new agreements. The following summarizes the status of collective bargaining at each MTA agency through the end of the third quarter of 2018.

MTA Long Island Rail Road – As of December 31, 2018, MTA Long Island Rail Road had approximately 7,600 employees. Approximately 6,694 of the MTA Long Island Rail Road employees were represented by 11 different unions in 19 bargaining units. MTA Long Island Rail Road has reached agreement will all its unions. Significantly, the agreements all contain general wage increases that conform to those present in the pattern-setting TWU Local 100 agreement with MTA New York City Transit; and, consistent with MTA's Financial Plan, they were all designed to result in net going-out costs that match the costs of the TWU agreement.

MTA Metro-North Railroad – As of December 31, 2018, MTA Metro-North Railroad had reached agreements with ten bargaining units covering approximately 55% of its 5,582 represented employees. Included in this number is a new agreement, reached in October between Metro-North and the Transport Workers Union of America ("TWU Locals 2001 and 2055"), which will cover approximately 600 coach cleaners and car mechanics. This will be a 29.5 month agreement—running from March 16, 2017 to August 31, 2019 and, like all the others with MTA Metro-North Railroad's unions, it is consistent with the railroad wage pattern established at MTA Long Island Rail Road. MTA Metro-North Railroad's remaining represented population is covered by agreements that, while now considered "amendable" under the Railway Labor Act, remain in effect. The railroad is engaged in collective bargaining with these remaining units and it is expected that settlements will be reached that will also conform to the established railroad wage pattern.

MTA Headquarters – In the final two quarters of 2018, labor agreements with approximately 47% of MTA Headquarters employees expired. On August 31, 2018, an agreement with 79 clerical and administrative workers represented by the International Brotherhood of Teamsters Local 808 lapsed; and on October 14, 2018 the agreements covering approximately 741 MTA Police employees covered by the Police Benevolent Association ("PBA") and by the Commanding Officers Association ("COA") expired. However, collective bargaining efforts to reach new agreements are currently underway.

At the end of 2018, MTA Headquarters Business Service Center had 293 employees, approximately 230 of whom are represented by several clerical/administrative unions. The largest such union, representing approximately 219 employees, is the Transportation Communications Union ("TCU"), Local 643 whose contract covers the period from April 1, 2015 through March 31, 2020.

In January 2014, the Information Technology Department consolidated all agency IT functions and positions under MTA Headquarters. As of June 2018, the department had 985 employees, approximately 453 of whom are represented. The two predominant unions are the TCU Local 982 and TWU Local 100, which together account for more than 90% of the IT Department's represented workforce. MTA had a prevailing agreement with the TCU in the third quarter of 2018, and it will expire December 31, 2019. In many respects, it is similar to the BSC agreement, including 401(k) plan eligibility as opposed to a defined benefit pension plan for new hires. An agreement with TWU local 100 that is consistent with the established bargaining pattern was also in effect through the third quarter, and it expires July 13, 2019.

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

MTA New York City Transit Authority/Manhattan and Bronx Surface Transit Operating Authority – Effective January 16, 2017, MTA New York City Transit and MaBSTOA entered into a 28-month labor contract agreement with TWU Local 100. This agreement, which has been ratified by the TWU membership and approved by the MTA Board, has an expiration date of May 15, 2019. At the time of the agreement, there were an estimated 35,243 active employees represented by TWU Local 100, of which MTA New York City Transit had 29,643 and MaBSTOA had 5,600. Also effective on January 16, 2017, MTA New York City Transit entered into separate 28 month labor contract agreements with Amalgamated Transit Union ("ATU") Locals 1056 and 726. This agreement, which was ratified by the ATU membership and approved by the MTA Board, also has an expiration of May 15, 2019. The ATU Locals 1056 and 726 represent 3,456 employees. In September 2017, MTA New York City Transit also reached agreement with TWU Local 100 Computer and Telecommunications employees together with Career & Salary Employees who had been formerly represented by TWU Local 106 ("TSO"). Together, 508 hourly employees are represented by these two groups. The agreements are very similar in structure to the earlier TWU Local 100 agreement, and the going-out cost for both groups together match the expectations of the Financial Plan.

MTA Bus Company – As of December 31, 2018, MTA Bus Company had 4,182 employees (full and part time), approximately 3,832 of whom are represented by five different unions. TWU Local 100, by far the largest of them, with 2,264 represented employees, bargained together with TWU Local 100 at MTA New York City Transit and MaBSTOA to reach an agreement that will be effective through May 15, 2019.

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

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

MTA Bridges and Tunnels – As of December 31, 2018, MTA Bridges and Tunnels had 1,392 employees, approximately 947 of whom were represented by four different unions. On May 22, 2014 MTA Bridges and Tunnels entered into a Memorandum of Understanding ("DC 37 Local 1931 MOU") with DC 37 Local 1931, representing maintenance employees (approximately 34% of B&T's current represented population). That agreement ran from October 15, 2009 through October 14, 2012 and was consistent with MTA's bargaining pattern as expressed in the 2009-2012 TWU Local 100 collective bargaining agreement. Through the third quarter of 2018, negotiations for a new agreement continued.

On July 17, 2014, an Interest Arbitration Award was issued for the Bridge and Tunnel Officers Benevolent Association, representing (as of December 31, 2018) approximately 48% of B&T's total represented population. The term of this award is for the May 18, 2009 through May 17, 2012 bargaining round and was consistent with the TWU Local 100 2009-2012 pattern. Negotiations for a new agreement continued through the third quarter of 2018.

On January 30, 2015, MTA Bridges and Tunnels entered into a Memorandum of Agreement ("MOA") with the Superior Officers Benevolent Association ("SOBA") representing approximately supervisory officers—around 16% of B&T's represented population. This MOA was ratified by SOBA and was approved by the MTA Board on February 25, 2015. The agreement ran from March 15, 2009 through March 14, 2012 and was consistent with MTA's bargaining pattern as expressed in the 2009-2012 TWU Local 100 collective bargaining agreement. Negotiations for a new agreement continued through the third quarter of 2018.

On March 17, 2015, a seven year and four-month agreement, March 3, 2010 through July 2, 2017, was reached with DC 37 Local 1655, which represents clerical employees constituting approximately 3% of B&T's represented population. The agreement is consistent with the pattern set by the DC 37 Citywide agreement for the same period.

MTA Staten Island Railway - As of December 31, 2018, MTA Staten Island Railway had 337 employees, approximately 308 of whom were represented by four different unions. At the end of the third quarter of 2018, MTA Staten Island Railway had reached agreement with one of these unions—the TCU, covering approximately 25 station cleaners, station agents, clerks and stock workers. The 28-month agreement, spanning the period from December 17, 2017 through April 16, 2019, matches the pattern-setting agreement reached between MTA New York City Transit and TWU Local 100, and it is consistent with MTA

Staten Island Railway's Financial Plan for the period. Meanwhile, contracts with the railway's other three unions have all expired. Its contract with the Sheet Metal, Air, Rail and Transportation Workers International Association ("SMART") Local 1440 (formerly the United Transportation Union), covering approximately 243 employees, expired on February 15, 2017; the railway's agreement with the American Train Dispatchers Association ("ADTA") covering 13 represented employees expired on December 16, 2016; and the agreement with Subway Surface Supervisors Association ("SSSA"), covering 16 represented employees, expired on February 15, 2017. Negotiations for successor agreements were underway throughout the final quarter.

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

Congestion Zone Surcharges

In April 2018, the approved 2018-2019 New York State Budget established State legislation providing additional long-term sources of revenue to address the financial needs of the MTA and its affiliates and subsidiaries. Among other things, the State legislation imposed, beginning January 1, 2019, the following:

- A surcharge of $2.75 on for-hire transportation trips ("For-Hire Transportation Surcharge") provided by motor vehicles carrying passengers for hire (or $2.50 in the case of taxicabs that are subject to the $0.50 tax on hailed trips that are part of the MTA Aid Trust Account Receipts), other than pool vehicles, ambulances and busses, on each trip that (1) originates and terminates south of and excluding 96th Street in the Borough of Manhattan ("Congestion Zone"), (2) originates anywhere in the State and terminates within the Congestion Zone, (3) originates in the Congestion Zone and terminates anywhere in the State, or (4) originates anywhere in the State, enters into the Congestion Zone while in transit, and terminates anywhere in the State;
- A surcharge of $0.75 for each person ("Pool Vehicle Surcharge", which, together with the For-Hire Transportation Surcharge, is referred to herein collectively as the "Congestion Zone Surcharges") who both enters and exits a pool vehicle (certain carpool arrangements set forth in the April 2018 Legislation) in the State and who is picked up in, dropped off in, or travels through the Congestion Zone; and
- Certain fines relating to bus rapid transit lane restrictions ("Rapid Transit Lane Fines") captured by the use of stationary and mobile (on-bus) bus lane photo devices on up to ten bus rapid transit routes designated by the New York City Department of Transportation.

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, and the following three accounts therein:

- Subway Action Account,
- Outer Borough Transportation Account, and
- General Transportation Account.

Funds in the Subway Action Plan Account may be used exclusively for funding the operating and capital costs of the Subway Action Plan (such plan developed by MTA New York City Transit and approved by the MTA Board).

Funds in the Outer Borough Transportation Account may be used exclusively for funding (1) the operating and capital costs of 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.

Funds in the General Transportation Account may be used 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.

Confirmation of Chairman

On April 1, 2019, Governor Andrew M. Cuomo announced the appointment of Patrick Foye as Chairman of the MTA, following the New York State Senate's confirmation, on April 1, 2019, of Governor Cuomo's nomination of Mr. Foye.

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(A Component Unit of the State of New York)

CONSOLIDATED STATEMENTS OF NET POSITION

AS OF DECEMBER 31, 2018 AND 2017

($ in millions)

	December 31, 2018	December 31, 2017
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
CURRENT ASSETS:		
Cash (Note 3)	$ 541	$ 283
Unrestricted investments (Note 3)	2,915	3,689
Restricted investments (Note 3)	1,487	1,783
Restricted investments held under capital lease obligations (Notes 3 and 8)	4	4
Receivables:		
Station maintenance, operation, and use assessments	119	119
State and regional mass transit taxes	108	140
Mortgage Recording Tax receivable	43	36
State and local operating assistance	11	10
Other receivable from New York City and New York State	289	187
Due from Build America Bonds	1	1
Capital project receivable from federal and state government	143	121
Other	463	425
Less allowance for doubtful accounts	(128)	(62)
Total receivables — net	1,049	977
Materials and supplies	624	608
Prepaid expenses and other current assets (Note 2)	145	170
Total current assets	6,765	7,514
NON-CURRENT ASSETS:		
Capital assets (Notes 6):		
Land and construction work-in-progress	18,269	17,195
Other capital assets (net of accumulated depreciation)	54,242	50,865
Unrestricted investments (Note 3)	46	55
Restricted investments (Note 3)	546	485
Restricted investments held under capital lease obligations (Notes 3 and 8)	382	372
Other non-current receivables	58	46
Receivable from New York State	10	43
Other non-current assets	20	18
Total non-current assets	73,573	69,079
TOTAL ASSETS	80,338	76,593
DEFERRED OUTFLOWS OF RESOURCES:		
Accumulated decreases in fair value of derivative instruments (Note 7)	329	408
Loss on debt refunding (Notes 7)	1,138	1,235
Deferred outflows related to pensions (Note 4)	1,397	2,044
Deferred outflows related to OPEB (Note 5)	1,496	-
TOTAL DEFERRED OUTFLOWS OF RESOURCES	4,360	3,687
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	$ 84,698	$ 80,280

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, 2018 AND 2017

($ in millions)

	December 31, 2018	December 31, 2017
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION		
CURRENT LIABILITIES:		
Accounts payable	$ 470	$ 607
Accrued expenses:		
Interest	210	204
Salaries, wages and payroll taxes	327	307
Vacation and sick pay benefits	1,020	988
Current portion — retirement and death benefits	16	14
Current portion — estimated liability from injuries to persons (Notes 10)	454	415
Capital accruals	737	412
Unearned premiums	264	255
Other	693	606
Total accrued expenses	3,721	3,201
Current portion — loan payable (Note 7)	15	14
Current portion — long-term debt (Note 7)	2,552	1,806
Current portion — obligations under capital lease (Note 8)	4	4
Current portion — pollution remediation projects (Note 12)	31	20
Derivative fuel hedge liability (Note 14)	12	-
Unearned revenues	804	594
Total current liabilities	7,609	6,246
NON-CURRENT LIABILITIES:		
Net pension liability (Note 4)	6,487	8,105
Estimated liability arising from injuries to persons (Notes 10)	3,800	3,436
Net OPEB liability (Note 5)	20,335	16,731
Loan payable (Note 7)	104	100
Long-term debt (Notes 7)	39,617	38,292
Obligations under capital leases (Notes 8)	443	436
Pollution remediation projects (Note 12)	108	59
Contract retainage payable	406	376
Derivative liabilities (Note 7)	346	422
Other long-term liabilities	376	347
Total non-current liabilities	72,022	68,304
TOTAL LIABILITIES	79,631	74,550
DEFERRED INFLOWS OF RESOURCES:		
Gain on debt refunding	23	26
Deferred inflows related to pensions (Note 4)	1,070	480
Deferred inflows related to OPEB (Note 5)	21	-
TOTAL DEFERRED INFLOWS OF RESOURCES	1,114	506
NET POSITION:		
Net investment in capital assets	30,000	28,250
Restricted for debt service	454	516
Restricted for claims	206	182
Restricted for other purposes (Note 2)	1,230	983
Unrestricted	(27,937)	(24,707)
TOTAL NET POSITION	3,953	5,224
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	$ 84,698	$ 80,280

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, 2018 AND 2017

($ in millions)

	December 31, 2018	December 31, 2017
OPERATING REVENUES:		
Fare revenue	$ 6,155	$ 6,172
Vehicle toll revenue	1,976	1,912
Rents, freight, and other revenue	605	589
Total operating revenues	8,736	8,673
OPERATING EXPENSES:		
Salaries and wages	6,300	5,968
Retirement and other employee benefits	2,447	2,742
Postemployment benefits other than pensions (Note 5)	1,749	2,155
Electric power	482	430
Fuel	185	151
Insurance	(29)	(3)
Claims	437	525
Paratransit service contracts	455	393
Maintenance and other operating contracts	633	645
Professional service contracts	545	425
Pollution remediation projects (Note 12)	106	13
Materials and supplies	637	588
Depreciation (Note 2)	2,679	2,611
Other	215	207
Total operating expenses	16,841	16,850
OPERATING LOSS	(8,105)	(8,177)
NON-OPERATING REVENUES (EXPENSES):		
Grants, appropriations and taxes:		
Tax-supported subsidies — NYS:		
Mass Transportation Trust Fund subsidies	633	606
Metropolitan Mass Transportation Operating Assistance subsidies	1,687	1,668
Payroll Mobility Tax subsidies	1,669	1,695
MTA Aid Trust Account subsidies	296	292
Tax-supported subsidies — NYC and Local:		
Mortgage Recording Tax subsidies	447	453
Urban Tax subsidies	700	539
Other subsidies:		
New York State Service Contract subsidy	1	5
Operating Assistance - 18-B program	376	376
Build America Bond subsidy	90	88
NYS/NYC Subway Action Plan	508	-
Total grants, appropriations and taxes	$ 6,407	$ 5,722

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, 2018 AND 2017

($ In millions)

	December 31, 2018	December 31, 2017
NON-OPERATING REVENUES (EXPENSES):		
Connecticut Department of Transportation	$ 134	$ 103
Subsidies paid to Dutchess, Orange, and Rockland Counties	(9)	(9)
Interest on long-term debt (Note 2)	(1,460)	(1,517)
Station maintenance, operation and use assessments	168	165
Operating subsidies recoverable from NYC	560	503
Loss on disposal of subway cars	(125)	-
Other net non-operating expenses	(22)	12
Net non-operating revenues	5,653	4,979
LOSS BEFORE APPROPRIATIONS, GRANTS AND OTHER RECEIPTS EXTERNALLY RESTRICTED FOR CAPITAL PROJECTS	(2,452)	(3,198)
APPROPRIATIONS, GRANTS AND OTHER RECEIPTS EXTERNALLY RESTRICTED FOR CAPITAL PROJECTS	2,302	2,662
CHANGE IN NET POSITION	(150)	(536)
NET POSITION— Beginning of year	5,224	5,607
Restatement of beginning net position - adoption of GASB No. 75 (Note 2)	(1,121)	-
Cumulative effect of change in accounting principle (Note 2)	-	153
NET POSITION — End of year	$ 3,953	$ 5,224

See notes to the consolidated financial statements. (Concluded)

Note: During 2017, MTA Bridges and Tunnels changed to a more preferable method of amortizing bond premiums and discounts, constant yield. This change in method was accounted for on a prospective basis.

(A Component Unit of the State of New York)

CONSOLIDATED STATEMENTS OF CASH FLOWS

YEARS ENDED DECEMBER 31, 2018 AND 2017

($ In millions)

	December 31, 2018	December 31, 2017
CASH FLOWS FROM OPERATING ACTIVITIES:		
Passenger receipts/tolls	$ 8,161	$ 8,072
Rents and other receipts	790	730
Payroll and related fringe benefits	(9,609)	(9,384)
Other operating expenses	(3,626)	(3,252)
Net cash used by operating activities	(4,284)	(3,834)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Grants, appropriations, and taxes	6,937	6,486
Operating subsidies from CDOT	122	124
Subsidies paid to Dutchess, Orange, and Rockland Counties	(9)	(9)
Net cash provided by noncapital financing activities	7,050	6,601
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
MTA bond proceeds	1,528	6,093
MTA Bridges and Tunnels bond proceeds	1,443	2,723
MTA bonds refunded/reissued	(1,058)	(4,890)
MTA Bridges and Tunnels bonds refunded/reissued	(648)	(1,974)
MTA anticipation notes proceeds	3,191	2,252
MTA anticipation notes redeemed	(512)	(1,624)
MTA credit facility proceeds	4	204
MTA credit facility refunded	-	(200)
Grants and appropriations	2,171	3,158
Payment for capital assets	(6,454)	(6,000)
Debt service payments	(2,999)	(2,840)
Net cash used by capital and related financing activities	(3,334)	(3,098)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of long-term securities	(6,135)	(8,190)
Sales or maturities of long-term securities	6,283	8,761
Net sales (purchases) or maturities of short-term securities	567	(753)
Earnings on investments	111	64
Net cash provided by (used by) investing activities	826	(118)
NET INCREASE (DECREASE) IN CASH	258	(449)
CASH — Beginning of year	283	732
CASH — End of year	$ 541	$ 283

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, 2018 AND 2017

($ In millions)

	December 31, 2018	December 31, 2017
RECONCILIATION OF OPERATING LOSS TO NET CASH USED BY OPERATING ACTIVITIES:		
Operating loss (Note 2)	$ (8,105)	$ (8,177)
Adjustments to reconcile to net cash used in operating activities:		
Depreciation and amortization	2,679	2,611
Net increase in payables, accrued expenses, and other liabilities	956	1,806
Net increase in deferred outflows related to pensions	647	(381)
Net increase in deferred outflows related to OPEB	(1,496)	-
Net increase (decrease) in deferred inflows related to pensions	590	185
Net increase (decrease) in deferred inflows related to OPEB	21	-
Net increase in net pension liability and related accounts	(1,618)	202
Net increase in net OPEB liability and related accounts	3,603	-
Net decrease in receivables	(188)	7
Net decrease in materials and supplies and prepaid expenses	(1,373)	(87)
NET CASH USED BY OPERATING ACTIVITIES	$ (4,284)	$ (3,834)
NONCASH INVESTING, CAPITAL AND RELATED FINANCING ACTIVITIES:		
Noncash investing activities:		
Interest expense includes amortization of net (premium) / discount (Note 2)	$ 24	$ 223
Interest expense which was capitalized	49	59
Total Noncash investing activities	73	282
Noncash capital and related financing activities:		
Capital assets related liabilities	677	412
Capital leases related liabilities	447	436
Total Noncash capital and related financing activities	1,124	848
TOTAL NONCASH INVESTING, CAPITAL AND RELATED FINANCING ACTIVITIES	$ 1,197	$ 1,130

See notes to the consolidated financial statements. (Concluded)

Note: During 2017, MTA Bridges and Tunnels changed to a more preferable method of amortizing bond premiums and discounts, constant yield. This change in method was accounted for on a prospective basis.

(A Component Unit of the State of New York)

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017**

($ 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") as follows:

Metropolitan Transportation Authority and Related Groups (Component Units)

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

The subsidiaries and affiliates, considered component units of the MTA, are operationally and legally independent of the MTA. These related groups enjoy certain rights typically associated with separate legal status including, in some cases, the ability to issue debt. However, they are included in the MTA's consolidated 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, 2018 and 2017 totaled $6.4 billion and $5.7 billion, respectively.

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, 2018:

GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions,* establishes standards of accounting and financial reporting for postemployment benefits other than pensions ("OPEB") that is provided to the employees of state and local governmental employers through OPEB plans that are administered through trusts or equivalent arrangements that meet the following criteria:

- Contributions from employers and nonemployer contributing entities to the OPEB plan and earnings on those contributions are irrevocable.
- OPEB plan assets are dedicated to providing OPEB to plan members in accordance with the benefit terms.
- OPEB plan assets are legally protected from the creditors of employers, nonemployer contributing entities, the OPEB plan administrator, and the plan members.

This Statement also establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures. This Statement replaces the requirements of Statements No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended, and Statement No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*, for OPEB. For defined benefit OPEB plans, this Statement identifies the methods and assumptions that are required to be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. Note disclosure and required supplementary information requirements about defined benefit OPEB plans are also addressed.

The requirements of this Statement are effective for fiscal years beginning after June 15, 2017. As a result of adopting this Statement, the MTA is reporting net OPEB liabilities, deferred outflows of resources and deferred inflows of resources for the MTA Retiree Welfare Benefits Plan ("OPEB Plan") and recognizing OPEB expenses in accordance with the provisions of the Statement. The financial statement impact resulting from the implementation of GASB Statement No. 75 and GASB Statement No. 85 is the restatement of 2018 beginning net position, a decrease of $1.121 billion, representing the retroactive effect of adoption. The MTA did not have readily available information to restate amounts for periods prior to the implementation of GASB Statement No. 75 and GASB Statement No. 85. A net OPEB liability of $20.335 billion, deferred outflow of resources of $1.496 billion, and deferred inflows of resources of $21.101 million were reported at December 31, 2018. The MTA recognized OPEB expense of $1.749 billion for the year-end December 31, 2018. Refer to Note 5 for more information regarding the MTA OPEB Plan.

GASB Statement No. 85, *Omnibus 2017*, addresses practice issues identified during the implementation and application of certain GASB statements. The provisions of this Statement amend and clarify guidance under a variety of topics with the intent to enhance consistency in the application of accounting and reporting requirements. This Statement specifically issues related to blending component units, goodwill, fair value measurement and application, and pensions and other postemployment benefits ("OPEB"). The requirements of this Statement are effective for reporting periods beginning after June 15, 2017. The adoption of this Statement had no impact on the MTA's financial statements.

GASB Statement No. 86, *Certain Debt Extinguishment Issues*, establishes standards of accounting and financial reporting for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets acquired with only existing resources – resources other than the proceeds of refunding debt – are placed in an irrevocable trust for the sole purpose of extinguishing debt. This Statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to the financial statements for debt that is defeased in substance. The requirements of this Statement are effective for reporting periods beginning after June 15, 2017. The adoption of this Statement had no impact on 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.

GASB Statement No.	GASB Accounting Standard	MTA Required Year of Adoption
83	*Certain Asset Retirement Obligations*	2019
84	*Fiduciary Activities*	2019
87	*Leases*	2020
88	*Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*	2019
89	*Accounting for Interest Cost Incurred Before the End of a Construction Period*	2020
90	*Majority Equity Interests – An Amendment of GASB Statements No. 14 and No. 61*	2019

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, 2018 and 2017.

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

Materials and Supplies — Materials and supplies are valued principally at average cost, net of obsolescence reserve at December 31, 2018 and 2017 of $171 and $166, 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, 2018, the MTA paid to Dutchess, Orange and Rockland Counties the 2017 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.

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 started receiving the SAP funding in April 2018 and received the full funding by the end of 2018. For the year ended December 31, 2018, the MTA expended $508 million related to operating needs and $189 million related to capital needs for the Subway Action Plan. The MTA has $140 million remaining of the Subway Action Plan funds from New York State and New York City as of December 31, 2018.

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 2015 and 2016 billings are still open.

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

In 1995, New York City ceased reimbursing the Authority for the full costs of the free/reduced fare program for students. Beginning in 1996, the State and New York City each began paying $45 per annum to MTA New York City Transit toward the cost of the program. In 2009, the State reduced their $45 reimbursement to $6.3. Beginning in 2010, the State increased their annual commitment to $25.3 while New York City's annual commitment remained at $45. These commitments have been met by both the State and New York City for both 2017 and 2018. As of December 31, 2018, MTA New York City Transit collected $55.3 from the State and New York City. The remaining balance of $15 due from New York City was received in January 2019.

Prior to April 1995, New York City was obligated to reimburse MTA New York City Transit for the transit police force. As a result of the April 1995 merger of the transit police force into the New York City Police Department, New York City no longer reimburses MTA New York City Transit for the costs of policing the Transit System on an ongoing basis since policing of the Transit System is being carried out by the New York City Police Department at New York City's expense. MTA New York City Transit continues to be responsible for certain capital costs and support services related to such police activities, a portion of which is reimbursed by New York City. MTA New York City Transit received approximately $3.6 and $7.6 for the years ended December 31, 2018 and 2017 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, 2018 and 2017 were $22.7 and $21.8, respectively. The amounts recovered for the years ended December 31, 2018 and 2017 were approximately $14.8 and $14.2, 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 $217.3 in the year ended December 31, 2018, and $181.9 in the year ended December 31, 2017. Total paratransit expenses, including paratransit service contracts, were $537.1 and $477.0 in 2018 and 2017, 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, 2018, the balance of the assets in this program was $152.6.

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

On March 1, 2018, the "nonrevenue fleet" automobile liability policy program was renewed. This program provides third-party auto liability insurance protection for the MTA Group with the exception of MTA New York City Transit, MTA Bus and MTA Bridges and Tunnels. The policy provides $11 per occurrence limit with a $0.5 per occurrence deductible for MTA Long Island Rail Road, MTA Staten Island Railway, MTA Police, MTA Metro-North Railroad, MTA Inspector General and MTA Headquarters. FMTAC renewed its deductible buy back policy, where it assumes the liability of the agencies for their deductible.

On March 1, 2018, 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 $3 per occurrence limit with a $1 per occurrence deductible.

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

Property Insurance — Effective May 1, 2018, FMTAC renewed the all-agency property insurance program. For the annual period commencing May 1, 2018, FMTAC directly insures property damage claims of the Related Entities in excess of a $25 per occurrence deductible, subject to an annual $75 aggregate deductible. The total program annual limit is $800 per occurrence and in the annual aggregate for Flood and Earthquake covering property of the Related Entities collectively. FMTAC is reinsured in the domestic, Asian, London, European and Bermuda reinsurance markets for this coverage. Losses occurring after exhaustion of the deductible aggregate are subject to a deductible of $7.5 per occurrence. The property insurance policy provides replacement cost coverage for all risks (including Earthquake, Flood and Wind) of direct physical loss or damage to all real and personal property, with minor exceptions. The policy also provides extra expense and business interruption coverage.

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

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

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

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

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

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

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

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

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

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

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 (in millions):

Net position as of December 31, 2017, as previously reported	$5,224
Composition of Restatement:	
Deferred outflows related to contributions, beginning of the year	651
Net OPEB liability, beginning of the year	(18,464)
Other accrued liabilities	(39)
Accrued OPEB liabilities, as previously reported	16,731
Total Restatement:	(1,121)
Net position as of December 31, 2017, as restated	$4,103

Premium and Discount Amortization — During 2017, MTA Bridges and Tunnels changed its method of amortizing bond premiums and discounts to the constant yield method, which is a more preferable accounting principle than the principle used in previous years. The constant yield method of amortization is commonly used by state and local governments and public authorities and is the suggested method of amortization under GASB Codification I30, *Interest Costs-Imputation*. This change in method resulted in an increase in 2017 beginning net position of $153. This change in method is accounted for on a prospective basis.

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, 2018 and 2017 (in millions):

	2018		2017	
	Carrying Amount	**Bank Balance**	**Carrying Amount**	**Bank Balance**
FDIC insured or collateralized deposits	$ 75	$ 62	$ 88	$ 87
Uninsured and not collateralized	466	406	195	143
Total Balance	$ 541	$ 468	$ 283	$ 230

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, 2018 and 2017 (in millions):

Investments by fair value level	December 31, 2018	Fair Value Measurements Level 1	Fair Value Measurements Level 2	December 31, 2017	Fair Value Measurements Level 1	Fair Value Measurements Level 2
Debt Securities:						
U.S. treasury securities	$ 3,325	$ 2,984	$ 341	$ 4,333	$ 4,053	$ 280
U.S. government agency	387	261	126	387	144	243
Commercial paper	758	-	758	877	-	877
Asset-backed securities	45	-	45	39	-	39
Commercial mortgage-backed securities	81	-	81	30	-	30
Foreign bonds	16	16	-	9	9	-
Corporate bonds	133	133	-	149	149	-
Tax Benefit Lease Investments:					-	
U.S. treasury securities	178	178	-	177	177	-
U.S. government agency	112	-	112	114	-	114
Repurchase agreements	223	223	-	122	122	-
Money Market Funds	-	-	-	6	-	6
Total debt securities	5,258	3,795	1,463	6,243	4,654	1,589
Equity securities	-	-	-	25	25	-
Total investments by fair value level	5,258	$ 3,795	$ 1,463	6,268	$ 4,679	$ 1,589
Other	122			120		
Total Investments	$ 5,380			$ 6,388		

Investments classified as Level 1 of the fair value hierarchy, totaling $3,795 and $4,679 as of December 31, 2018 and 2017, 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 $238 and $357, U.S. treasury securities totaling $341 and $280, commercial paper totaling $758 and $877, asset-backed securities totaling $45 and $39, commercial mortgage-backed securities totaling $81 and $30, and money market instruments totaling $0 and $6, as of December 31, 2018 and 2017, respectively, classified in Level 2 of the fair value hierarchy, are valued using matrix pricing techniques maintained by a third party pricing service. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices and indices. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from a third party pricing service or our custodian bank.

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

All investments, other than the investments restricted for capital lease obligations, are either insured or registered and held by the MTA or its agent in the MTA's name. Investments restricted for capital lease obligations are either held by MTA or its agent in the MTA's name or held by a custodian as collateral for MTA's obligation to make rent payments under capital lease obligations. Investments had weighted average yields of 2.36% and 1.18% for the years ended December 31, 2018 and 2017, respectively.

Credit Risk — At December 31, 2018 and 2017, 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, 2018	Percent of Portfolio	December 31, 2017	Percent of Portfolio
A-1+	$ 283	5%	$ 336	5%
A-1	758	14%	869	14%
AAA	217	4%	101	2%
AA+	52	1%	53	1%
AA	31	1%	24	1%
A	76	1%	91	1%
BB	-	-	1	-
BBB	38	1%	43	1%
Not rated	240	5%	154	2%
U.S. Government	3,563	68%	4,571	73%
Total	5,258	100%	6,243	100%
Equities and capital leases	122		145	
Total investment	$ 5,380		$ 6,388	

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, 2018		December 31, 2017	
(In millions)	Fair Value	Duration (in years)	Fair Value	Duration (in years)
U.S. Treasuries	$ 3,325	3.00	$ 4,333	2.19
Federal Agencies	387	5.91	387	4.15
Tax benefits lease investments	290	8.06	291	9.12
Repurchase agreement	223	-	122	-
Certificate of deposits	-	-	6	-
Commercial paper	758	-	877	0.04
Asset-backed securities (1)	45	1.94	39	1.08
Commercial mortgage-backed securities (1)	81	5.55	30	5.63
Foreign bonds (1)	16	6.20	9	-
Corporates (1)	133	4.43	149	5.27
Total fair value	5,258		6,243	
Modified duration		3.01		2.37
Equities (1)	-		25	
Total	5,258		6,268	
Investments with no duration reported	122		120	
Total investments	$ 5,380		$ 6,388	

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

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

2. MaBSTOA Plan —

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

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

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

3. MNR Cash Balance Plan —

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

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

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

4. *MTA Defined Benefit Plan —*

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

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

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

5. *NYCERS —*

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

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

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

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

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

6. *NYSLERS —*

NYSLERS is a cost-sharing, multiple-employer defined benefit retirement system. The New York State Comptroller's Office administers the NYSLERS. The net position of NYSLERS is held in the New York State Common Retirement Fund (the "Fund"), which was established to hold all assets and record changes in fiduciary net position allocated to the plan. The Comptroller of the State of New York serves as the trustee of the Fund and is the administrative head of NYSLERS. NYSLERS' benefits are established under the provisions of the New York State RSSL. Once a public employer elects to participate in NYSLERS, the election is irrevocable. The New York State Constitution provides that pension membership is a contractual relationship and plan benefits cannot be diminished or impaired. Benefits can be changed for future members only by enactment of a State statute.

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

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

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

Benefits Provided

1. Additional Plan —

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

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

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

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

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

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

2. MaBSTOA Plan —

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

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

Tier 1 —

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

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

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

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

Tier 2 —

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

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

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

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

Tiers 3, 4 —

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

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

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

Ordinary and Accidental Disability Benefits — For eligible members of the Regular 62/5 Plan, 57/25Plan 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, LaGuardia, Spring Creek, and Yonkers Depots and the represented employees at College Point Depot, JFK, Far Rockaway a participant is eligible for a service retirement allowance upon termination if the participant has attained age sixty-five and completed at least five years of credited service or if the participant has attained age 57 and completed at least 20 years of credited service. A participant hired prior to June 2009 from Baisley Park, College Point, and La Guardia Depots is eligible for an early retirement allowance if the participant has attained age 55 and completed 20 years of credited service. Terminated participants with five or more years of credited service who are not eligible to receive a service retirement allowance or early retirement allowance are eligible for a deferred vested benefit. Deferred vested benefits are payable on an unreduced basis on or after the participant attains age 65.

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

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

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

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

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

The disability retirement allowance for covered MTA Metro-North Railroad and MTA Long Island Rail Road management and represented covered MTA Staten Island Railway employees is calculated based on the participant's credited service and final average salary ("FAS") but not less than 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, Laguardia and Spring Creek Depots, if a participant dies prior to being eligible for a retirement benefit, the participant's beneficiary may elect to receive a refund of the participant's contributions plus interest.

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

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

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

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

5. NYCERS —

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

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

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

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

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

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

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

6. NYSLERS —

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

Tiers 1 and 2 —

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

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

Tiers 3, 4, and 5 —

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

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

Tier 6 —

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

Benefit Calculation: Generally, the benefit is 1.67% of final average salary for each year of service if the member retires with less than 20 years. If a member retires with 20 years of service, the benefit is 1.75% of final average salary for each year of service. If a member retires with more than 20 years of service, an additional benefit of 2% of final average salary is applied for each year of service over 20 years. Tier 6 members with 10 or more years of service can retire as early as age 55 with reduced benefits. Final average salary is the average of the wages earned in the five highest consecutive years of employment. For Tier 6 members, each year's compensation used in the final average salary calculation is limited to no more than 10% greater than the average of the previous four years.

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

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

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

Membership

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

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

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

Contributions and Funding Policy

1. Additional Plan —

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

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

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

2. MaBSTOA Plan —

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

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

i. Tier 1 and 2 - Basic Plans;

ii. Tier 3 and 4 - 55 and 25 Plan;

iii. Tier 3 and 4 - Regular 62 and 5 Plan;

iv. Tier 4 - 57 and 5 Plan

v. Tier 6 - 55 and 25 Special Plan

vi. Tier 6 - Basic 63 and 10 Plan

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

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

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

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

3. *MNR Cash Balance Plan —*

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

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

4. *MTA Defined Benefit Plan —*

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

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

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

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

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

Covered MTA Bus represented employees and certain non-represented employees are required to contribute a fixed dollar amount, which varies, by depot. Currently, non-represented employees at certain Depots, contribute $21.50 (whole dollars) per week. Non-represented employees at Eastchester hired prior to 2007 contribute $25 (whole dollars) per week. Represented employees at Baisley Park, College Point, Eastchester, Far Rockaway, JFK, LaGuardia and Yonkers Depots contribute $29.06 (whole dollars) per week; Spring Creek represented employees contribute $32.00 (whole dollars) per week. Certain limited number of represented employees promoted prior to the resolution of a bargaining impasse continue to participate in the MTA Defined Benefit Plan that was in effect before their promotion. Certain MTA Bus non-represented employees who are formerly employed by the private bus companies (Jamaica, Green, Triboro and Command) at Baisley Park, Far Rockaway, JFK, LaGuardia and Spring Creek Depots who are in the pension program covering only such employees make no contributions to the program. (Note: the dollar figures in this paragraph are in dollars, not in millions of dollars).

5. *NYCERS —*

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

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

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

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

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

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

6. *NYSLERS —*

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

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

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

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

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

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

Net Pension Liability

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

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

Pension Plan Fiduciary Net Position

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

Actuarial Assumptions

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

	Additional Plan		MaBSTOA Plan		MNR Cash Balance Plan	
Valuation Date:	**January 1, 2017**	**January 1, 2016**	**January 1, 2017**	**January 1, 2016**	**January 1, 2018**	**January 1, 2017**
Investment Rate of Return	7.00% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.	4.00% per annum, net of investment expenses.	4.00% per annum, net of investment expenses.
Salary Increases	3.00%	3.00%	Reflecting general wage, merit and promotion increases of 3.5% for operating employees and 4.0% for non- operating employees per year. Larger increases are assumed in the first 5 years of a member's career.	Reflecting general wage, merit and promotion increases of 3.5% for operating employees and 4.0% for non- operating employees per year. Larger increases are assumed in the first 5 years of a member's career.	Not applicable	Not applicable
Inflation	2.50%; 3.50% for Railroad Retirement Wage Base.	2.50%; 3.50% for Railroad Retirement Wage Base.	2.50%.	2.50%.	2.50%	2.30%
Cost-of Living Adjustments	Not applicable	Not applicable	1.375% per annum.	1.375% per annum.	Not applicable	Not applicable

	MTA Defined Benefit Plan		NYCERS		NYSLERS	
Valuation Date:	**January 1, 2017**	**January 1, 2016**	**June 30, 2016**	**June 30, 2015**	**April 1, 2017**	**April 1, 2016**
Investment Rate of Return	7.00% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.	7.00% per annum, net of expenses.	7.00% per annum, net of expenses.	7.00% per annum, including inflation, net of investment expenses.	7.00% per annum, including inflation, net of investment expenses.
Salary Increases	Varies by years of employment, and employee group; 3.0% General Wage Increases for TWU Local 100 MTA Bus hourly employees.	Varies by years of employment, and employee group; 3.0% General Wage Increases for TWU Local 100 MTA Bus hourly employees.	In general, merit and promotion increases plus assumed General Wage increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage increases of 3.0% per year.	3.8% in ERS, 4.5% in PFRS	3.8% in ERS, 4.5% in PFRS
Inflation	2.50%; 3.50% for Railroad Retirement Wage Base.	2.50%; 3.00% for Railroad Retirement Wage Base.	2.50%	2.50%	2.50%	2.50%
Cost-of Living Adjustments	55% of inflation assumption or 1.375%, if applicable.	55% of inflation assumption or 1.375%, if applicable.	1.5% per annum for Tiers 1, 2, 4 and certain Tier 3 and Tier 6 retirees. 2.5% per annum for certain Tier 3 and Tier 6 retirees.	1.5% per annum for Tiers 1, 2, 4 and certain Tier 3 and Tier 6 retirees. 2.5% per annum for certain Tier 3 and Tier 6 retirees.	1.30% per annum.	1.30% per annum.

Mortality

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

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

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

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

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

NYCERS:

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

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

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

NYSLERS:

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

Expected Rate of Return on Investments

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

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

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

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

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

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

Asset Class	NYCERS 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%	6.30%	36.00%	4.55%
International Public Market Equities	13.00%	7.00%	14.00%	6.35%
Emerging Public Market Equities	7.00%	9.50%	0.00%	0.00%
Private Market Equities	7.00%	10.40%	10.00%	7.50%
Fixed Income	33.00%	2.20%	17.00%	1.31%
Alternatives (Real Assets, Hedge Funds)	11.00%	5.50%	3.00%	5.29%
Real Estate			10.00%	5.55%
Absolute Return Strategies			2.00%	3.75%
Opportunistic Portfolio			3.00%	5.68%
Cash			1.00%	-0.25%
Inflation-indexed Bonds			4.00%	1.25%
	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,	Discount Rate			
	2018		2017	
Pension Plan	**Plan Measurement Date**	**Rate**	**Plan Measurement Date**	**Rate**
Additional Plan	December 31, 2017	7.00%	December 31, 2016	7.00%
MaBSTOA Plan	December 31, 2017	7.00%	December 31, 2016	7.00%
MNR Cash Balance Plan	December 31, 2017	4.00%	December 31, 2016	4.00%
MTA Defined Benefit Plan	December 31, 2017	7.00%	December 31, 2016	7.00%
NYCERS	June 30, 2018	7.00%	June 30, 2017	7.00%
NYSLERS	March 31, 2018	7.00%	March 31, 2017	7.00%

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

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

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

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

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

	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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

For the years ended years ended December 31, 2018 and 2017, the MTA recognized pension expense related to each pension plan as follows (in $ thousands):

	December 31,	
Pension Plan	**2018**	**2017**
Additional Plan	$ 47,936	$ 84,583
MaBSTOA Plan	116,967	156,302
MNR Cash Balance plan	16	(10)
MTA Defined Benefit Plan	316,900	346,535
NYCERS	510,157	595,905
NYSLERS	13,885	17,486
Total	**$ 1,005,861**	**$ 1,200,801**

For the years ended years ended December 31, 2018 and 2017, 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, 2018	**Additional Plan**		**MaBSTOA Plan**		**MNR Cash Balance Plan**		**MTA Defined Benefit Plan**	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ -	$ 19,549	$ 36,673	$ -	$ -	$ 141,294	$ 23,748
Changes in assumptions	-	-	5,370	-	-	-	9,406	46,880
Net difference between projected and actual earnings on pension plan investments	-	22,499	-	83,734	16	2	-	112,897
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	-	-	-	-	50,989	50,989
Employer contributions to the plan subsequent to the measurement of net pension liability	59,500	-	205,433	-	5	-	339,800	-
Total	$ 59,500	$ 22,499	$ 230,352	$ 120,407	$ 21	$ 2	$ 541,489	$ 234,514

For the Year Ended December 31, 2018	**NYCERS**		**NYSLERS**		**TOTAL**	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 403,424	$ 3,763	$ 3,110	$ 164,606	$ 466,955
Changes in assumptions	63,653	-	6,998	-	85,427	46,880
Net difference between projected and actual earnings on pension plan investments	-	234,268	-	14,927	16	468,327
Changes in proportion and differences between contributions and proportionate share of contributions	46,817	36,998	3,363	66	101,169	88,053
Employer contributions to the plan subsequent to the measurement of net pension liability	426,474	-	14,501	-	1,045,713	-
Total	$ 536,944	$ 674,690	$ 28,625	$ 18,103	$ 1,396,931	$ 1,070,215

For the Year Ended December 31, 2017	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	$ -	$ -	$ 11,663	$ 47,891	$ -	$ -	$ 167,897	$ -
Changes in assumptions	-	-	-	-	-	-	-	56,647
Net difference between projected and actual earnings on pension plan investments	32,500	-	88,414	-	20	4	171,591	-
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	-	-	-	-	6,386	6,386
Employer contributions to the plan subsequent to the measurement of net pension liability	221,523	-	202,684	-		-	321,860	-
Total	$ 254,023	$ -	$ 302,761	$ 47,891	$ 20	$ 4	$ 667,734	$ 63,033

For the Year Ended December 31, 2017	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	$ -	$ 133,514	$ 733	$ 4,440	$ 180,293	$ 185,845
Changes in assumptions	246,670	-	9,989	-	256,659	56,647
Net difference between projected and actual earnings on pension plan investments	-	204,459	5,840	-	298,364	204,463
Changes in proportion and differences between contributions and proportionate share of contributions	119,738	26,449	2,631	132	128,755	32,967
Employer contributions to the plan subsequent to the measurement of net pension liability	419,367	-	13,969	-	1,179,403	-
Total	$ 785,775	$ 364,422	$ 33,162	$ 4,572	$ 2,043,474	$ 479,922

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	6.30
MNR Cash Balance Plan	1.00	N/A	1.00
MTA Defined Benefit Plan	8.10	8.10	8.10
NYCERS	6.01	6.01	6.01
NYSLERS	5.00	5.00	5.00

For the years ended December 31, 2018 and 2017, $1,045.7 and $1,179.4 were reported as deferred outflows of resources related to pensions resulting from the MTA's contributions subsequent to the measurement date which will be recognized as a reduction of the net pension liability in the year ending December 31, 2019 and December 31, 2018, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions at December 31, 2018 will be recognized as pension expense as follows:

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

Deferred Compensation Program

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

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

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

As the Deferred Compensation Program's asset base and contribution flow increased, participants' investment options were expanded by the Deferred Compensation Committee with the advice of its Financial Advisor to provide greater diversification and flexibility. In 1988, after receiving an IRS determination letter for the 401(k) Plan, the MTA offered its managers the choice of either participating in the 457 Plan or the 401(k) Plan. By 1993, the MTA offered eight investment funds: a Guaranteed Interest Account Fund, a Money Market Fund, a Common Stock Fund, a Managed Fund, a Stock Index Fund, a Government Income Fund, an International Fund and a Growth Fund.

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

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

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

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

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

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

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

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

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

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 accept rollovers from all eligible retirement plans (as defined by the Code), including 401(a), 457, 401(k), 403(b), and rollover IRAs.

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

	December 31, 2018	**December 31, 2017**
	(In thousands)	
Employer 401K contributions	$ 4,392	$ 4,109

5. OTHER POSTEMPLOYMENT BENEFITS

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

(1) Plan Description

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

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

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

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

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

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

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

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

i. have retired;

ii. be receiving a pension (except in the case of the 401(k) Plan);

iii. have at least 10 years of credited service as a member of NYCERS, NYSLERS, the MTA Defined Benefit Plan, the Additional Plan, the MaBSTOA Plan, the MNR Cash Balance Plan, the 401(k) Plan or the VDC; and

iv. have attained the minimum age requirement (unless within 5 years of commencing retirement for certain members). A represented retired employee may be eligible only pursuant to the relevant collective bargaining agreement.

Surviving Spouse and Other Dependents —

- Lifetime coverage is provided to the surviving spouse (not remarried) or domestic partner and surviving dependent children to age 26 of retired managers and certain non-represented retired employees.
- Represented retired employees must follow the guidelines of their collective bargaining agreements regarding continued health coverage for a surviving spouse or domestic partner and surviving dependents. The surviving spouse coverage continues until spouse is eligible for Medicare for represented employees of MTA New York City Transit and MTA Staten Island Railway, retiring on or after:
  - 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 year-ended December 31, 2018, the MTA paid $696.1 of PAYGO to the OPEB Plan.

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

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

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

(2) Actuarial Assumptions

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

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

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

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

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

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

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

OPEB Plan Fiduciary Net Position — The fiduciary net position has been determined on the same basis used by the OPEB plan. The OPEB plan uses the accrual basis of accounting under which contributions from the employer are recognized when paid. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan. Investments are reported 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.

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

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

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

The plan's fiduciary net position was not projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total OPEB liability is equal to the single equivalent rate that results in the same actuarial present value as the long-term expected rate of return applied to benefit payments, to the extent that the plan's fiduciary net position is projected to be sufficient to make projected benefit payments, and the municipal bond rate applied to benefit payments, to the extent that the plan's fiduciary net position is not projected to be sufficient. Therefore, the discount rate is set equal to the Bond Buyer General Obligation 20-Bond Municipal Bond Index as of December 31, 2017 of 3.44%.

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

	Total OPEB Liability	Plan Fiduciary Net Position	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)
Administrative expenses	-	0	0
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 of 3.44%, as well as what the MTA's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the actual discount rate used for the measurement date:

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

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

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

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

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

For the year ended December 31, 2018, the MTA recognized OPEB expense of $1.75 billion.

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

	December 31, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 11,767	$ -
Changes of assumptions	788,294	-
Net difference between projected and actual earnings on OPEB plan investments	-	21,101
Employer contributions to the plan subsequent to the measurement of net OPEB liability	696,065	-
Total	**$ 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 year ended December 31, 2018, $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, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB at December 31, 2018 will be recognized in OPEB expense as follows (in thousands):

Year Ended December 31, 2018:		
2019	$	119,734
2020		119,734
2021		119,734
2022		119,734
2023		125,010
Thereafter		175,014
	$	778,960

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, 2016, December 31, 2017 and December 31, 2018 (in millions):

	Balance December 31, 2016	Additions / Reclassifications	Deletions / Reclassifications	Balance December 31, 2017	Additions / Reclassifications	Deletions / Reclassifications	Balance December 31, 2018
Capital assets not being depreciated:							
Land	$ 203	$ 14	$ -	$ 217	$ -	$ -	$ 217
Construction work-in-progress	16,256	6,491	5,769	16,978	7,528	6,454	18,052
Total capital assets not being depreciated	16,459	6,505	5,769	17,195	7,528	6,454	18,269
Capital assets being depreciated:							
Buildings and structures	17,458	751	493	17,716	746	5	18,457
Bridges and tunnels	3,316	288	-	3,604	550	-	4,154
Equipment:							
Passenger cars and locomotives	13,863	1	4	13,860	303	785	13,378
Buses	3,446	213	46	3,613	321	126	3,808
Infrastructure	22,078	1,783	27	23,834	2,438	14	26,258
Other	20,122	2,602	18	22,706	1,825	12	24,519
Total capital assets being depreciated	80,283	5,638	588	85,333	6,183	942	90,574
Less accumulated depreciation:							
Buildings and structures	6,683	530	290	6,923	495	4	7,414
Bridges and tunnels	746	37	-	783	23	-	806
Equipment:							
Passenger cars and locomotives	6,839	371	4	7,206	397	660	6,943
Buses	2,005	250	39	2,216	233	126	2,323
Infrastructure	8,635	672	21	9,286	803	17	10,072
Other	7,316	751	13	8,054	728	8	8,774
Total accumulated depreciation	32,224	2,611	367	34,468	2,679	815	36,332
Total capital assets being depreciated - net	48,059	3,027	221	50,865	3,504	127	54,242
Capital assets - net	$ 64,518	$ 9,532	$ 5,990	$ 68,060	$ 11,032	$ 6,581	$ 72,511

Interest capitalized in conjunction with the construction of capital assets for the years ended December 31, 2018 and 2017 was $49.3 and $58.9, 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, 2018 and 2017, these securities, which are not included in these financial statements, totaled $81.7 and $114.8, respectively, and had a market value of $53.2 and $83.7, respectively.

7. LONG-TERM DEBT

(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

(In millions)	Original Issuance	December 31, 2016	Issued	Retired	December 31, 2017
MTA:					
Transportation Revenue Bonds					
1.37%–6.68% due through 2057	$ 35,689	$ 21,209	$ 3,803	$ 3,984	$ 21,028
Bond Anticipation Notes					
2.0% due through 2018	4,604	948	2,204	1,636	1,516
State Service Contract Bonds					
4.125%–5.70% due through 2031	2,395	145	-	77	68
Dedicated Tax Fund Bonds					
2.05%–5.00% due through 2056	11,039	5,009	993	631	5,371
	53,727	27,311	7,000	6,328	27,983
Net unamortized bond premium	-	1,345	740	507	1,578
	53,727	**28,656**	**7,740**	**6,835**	**29,561**
TBTA:					
General Revenue Bonds					
4.00%–5.77% due through 2050	15,625	6,817	2,040	1,639	7,218
Bond Anticipation Notes					
5.77% due through 2032	400	-	400	235	165
Subordinate Revenue Bonds					
4.00%-5.77% due through 2032	4,066	1,520	108	242	1,386
	20,091	8,337	2,548	2,116	8,769
Net unamortized bond premium	-	735	399	553	581
	20,091	**9,072**	**2,947**	**2,669**	**9,350**
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	-	137	-	7	130
	1,057	**1,194**	**-**	**7**	**1,187**
Total	**$ 74,875**	**$ 38,922**	**$ 10,687**	**$ 9,511**	**$ 40,098**
Current portion		$ 1,977			$ 1,806
Long-term portion		$ 36,945			$ 38,292

MTA Transportation Revenue Bonds —Prior to 2018, MTA issued sixty-one 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 $31,419. The Transportation Revenue Bonds are MTA's special obligations payable solely from transit and commuter systems revenues and certain state and local operating subsidies.

On January 23, 2018, MTA issued $472 of Transportation Revenue Bonds, Series 2018A. Proceeds from the transaction were used to pay off the existing outstanding 2017B Bond Anticipation Notes in the amount of $500. The Series 2018A bonds were issued as $195 Subseries 2018A-1 and $277 Subseries 2018A-2. The Series 2018A-1 bonds were issued as mandatory tender bonds with an initial purchase date of November 15, 2020. The Series 2018A-2 bonds were issued as mandatory tender bonds with an initial purchase date of November 15, 2022.

On March 12, 2018, S&P Global Ratings lowered its long-term rating on all outstanding MTA Transportation Revenue Bonds to A+ from AA-.

On March 29, 2018, MTA effectuated a mandatory tender and remarketed $100 of MTA Transportation Revenue Variable Rate Refunding Bonds, Subseries 2002D-2b because its current interest rate period was set to expire by its terms.

On August 8, 2018, S&P Global Ratings lowered its long-term rating on all outstanding MTA Transportation Revenue Bonds to A from A+.

On August 21, 2018, MTA extended the direct pay letter of credit from U.S. Bank National Association that is associated with Transportation Revenue Variable Rate Bonds, Subseries 2015E-1 for three years to August 20, 2021.

On August 22, 2018, MTA effectuated a mandatory tender and remarketed $95.180 MTA Transportation Revenue Variable Rate Refunding Bonds, Subseries 2005E-1 and $71.385 MTA Transportation Revenue Variable Rate Refunding Bonds, Subseries 2005E-3 because their irrevocable direct-pay LOCs with Bank of Montreal were expiring by their terms and was substituted with separate irrevocable direct-pay LOCs each issued by PNC Bank, National Association. Each LOC will expire on August 20, 2021.

On August 23, 2018, MTA issued $207.220 MTA Transportation Revenue Refunding Green Bonds, 2018B. The Series 2018B bonds were issued as tax-exempt fixed rate bonds with a final maturity of November 15, 2028. Proceeds from the transaction were used to refund the following bonds: $35 MTA Dedicated Tax Fund Refunding Bonds, Subseries 2008B-3a; $73.985 MTA Transportation Revenue Bonds, Series 2008C; $19.805 MTA Transportation Revenue Variable Rate Bonds, Subseries 2015E-1; $49.510 MTA Transportation Revenue Variable Rate Bonds, Subseries 2015E-2; $39.610 MTA Transportation Revenue Variable Rate Bonds, Subseries 2015E-3; $13.010 MTA Transportation Revenue Variable Rate Bonds, Subseries 2015E-4; and $13.010 MTA Transportation Revenue Variable Rate Bonds, Subseries 2015E-5.

On September 5, 2018, MTA effectuated a mandatory tender of $193.460 MTA Transportation Revenue Variable Rate Bonds, Subseries 2015E-2 because its irrevocable direct-pay LOC with Bank of Tokyo-Mitsubishi UFJ Ltd. was expiring by its terms and MTA executed a Bond Purchase Agreement and Firm Remarketing Agreement constituting a Private Placement with Royal Bank of Canada to replace the expiring LOC. The Initial Mandatory Purchase date for the Subseries 2015E-2 bonds is September 5, 2023.

On September 5, 2018, MTA effectuated a mandatory tender and remarketed $154.850 MTA Transportation Revenue Variable Rate Bonds, Subseries 2015E-3; $70.350 MTA Transportation Revenue Variable Rate Bonds, Subseries 2015E-4; and $48.185 MTA Transportation Revenue Variable Rate Bonds, Subseries 2015E-5 because their respective irrevocable direct-pay LOCs were expiring by their terms. The LOC relating to the Subseries 2015E-3 issued by Citibank, N.A. was substituted with a LOC issued by Bank of America, N.A. The LOC will expire on September 2, 2022. The LOCs relating to the Subseries 2015E-4 and Subseries 2015E-5 issued by Bank of the West and U.S. Bank National Association, respectively, were substituted with a LOC issued by PNC Bank, National Association as both Subseries were combined into one (Subseries 2015E-4). The LOC for the combined Subseries 2015E-4 will expire on September 3, 2021.

On October 11, 2018, MTA extended the direct pay LOCs from TD Bank, N.A. that are associated with Transportation Revenue Variable Rate Bonds, Subseries 2002G-1g and Transportation Revenue Variable Rate Refunding Bonds, Subseries 2012G-2. The respective LOCs will be extended for three years to November 1, 2021.

On October 30, 2018, MTA effectuated a mandatory tender and remarketed $38.270 MTA Transportation Revenue Variable Rate Refunding Bonds, Series 2002G-1f and $137.175 MTA Transportation Revenue Variable Rate Refunding Bonds, Subseries 2005D-1 because their current interest rate periods were expiring by their terms. Both the Series 2002G-1f and 2005D-1 Bonds were remarketed in Term Rate Mode as Floating Rate Tender Notes ("FRNs") with a purchase date of July 1, 2021 and with an interest rate of 67% of 1-month LIBOR plus 0.65%.

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

On January 23, 2018, MTA issued $500 of MTA Transportation Revenue Bond Anticipation Notes, Series 2018A to finance existing approved transit and commuter projects. The Subseries 2018A notes are fixed rate tax-exempt notes with a final maturity of August 15, 2019.

On June 19, 2018, MTA issued $1,600 of MTA Transportation Revenue Bond Anticipation Notes, Series 2018B to generate new money proceeds to finance existing approved transit and commuter projects. The Series 2018B Notes are fixed rate tax-exempt notes with a final maturity of May 15, 2021.

On October 10, 2018, MTA issued $900 of MTA Transportation Revenue Bond Anticipation Notes, Series 2018C to generate new money proceeds to finance existing approved transit and commuter projects. The Series 2018C Notes were issued as fixed rate tax-exempt notes with an all-in True Interest Cost of 2.294% and a final maturity of September 1, 2021.

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.

MTA State Service Contract Bonds — Prior to 2018, 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 2018, 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.

MTA Certificates of Participation — Prior to 2018, 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 2018, MTA Bridges and Tunnels issued twenty- nine 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 $12,422. The General Revenue Bonds are MTA Bridges and Tunnels’ general obligations payable generally from the net revenues collected on the bridges and tunnels operated by MTA Bridges and Tunnels.

On January 24, 2018, MTA effectuated a mandatory tender and remarketed $122.635 of Triborough Bridge and Tunnel Authority General Revenue Variable Rate Bonds, Subseries 2003B-1 because the irrevocable direct-pay LOC relating to the Subseries 2003B-1 Bonds issued by PNC Bank, National Association, and the irrevocable direct-pay LOC relating to the Triborough Bridge and Tunnel Authority General Revenue Variable Rate Bonds, Subseries 2003B-3 Bonds issued by Wells Fargo Bank, National Association expired by their terms. The LOC facilities related to both Subseries 2003B-1 and Subseries 2003B-3 were substituted with an irrevocable direct- pay LOC issued by Bank of America, N.A. The LOC expires on January 21, 2022.

On January 24, 2018, MTA effectuated a mandatory tender and remarketed $190.3 of Triborough Bridge and Tunnel Authority General Revenue Variable Rate Refunding Bonds, Subseries 2005B-2 because the irrevocable direct-pay LOC issued by Wells Fargo Bank, National Association expired by its terms, and was substituted with an irrevocable direct-pay LOC issued by Citibank, N.A. The LOC expires on January 23, 2021.

On February 1, 2018, MTA issued $352 of Triborough Bridge and Tunnel Authority General Revenue Bonds, Series 2018A. The proceeds from the transactions were used to retire $165 of MTA Bridges and Tunnels General Revenue Bond Anticipation Notes, Series 2017A and to finance bridge and tunnel capital projects. The Series 2018A bonds have a final maturity of November 15, 2048.

On June 27, 2018, MTA effectuated a mandatory tender and remarketed $107.275 of Triborough Bridge and Tunnel Authority General Revenue Variable Rate Bonds, Series 2001C because the irrevocable direct-pay LOC relating to the Series 2001C Bonds issued by The Bank of Tokyo-Mitsubishi UFJ, Ltd., was expiring by its terms and was substituted with an irrevocable direct-pay LOC issued by State Street Bank and Trust Company. The LOC will expire on June 26, 2023.

On June 27, 2018, MTA effectuated a mandatory tender and remarketed $190.300 of Triborough Bridge and Tunnel Authority General Revenue Variable Rate Refunding Bonds, Subseries 2005B-3 because the irrevocable direct-pay LOC relating to the Subseries 2005B-3 Bonds issued by The Bank of Tokyo-Mitsubishi UFJ, Ltd., was expiring by its terms and was substituted with an irrevocable direct-pay LOC issued by State Street Bank and Trust Company. The LOC will expire on June 26, 2023.

On August 30, 2018, MTA issued $270.090 Triborough Bridge and Tunnel Authority General Revenue Refunding Bonds, Series 2018B. The Series 2018B bonds were issued as tax-exempt fixed rate bonds with a final maturity of November 15, 2031. Proceeds from the transaction were used to refund the following bonds: $195.450 TBTA General Revenue Bonds, Series 2008C; and $123.300 TBTA Subordinate Revenue Bonds, Series 2008D.

On August 30, 2018, MTA issued $159.280 Triborough Bridge and Tunnel Authority General Revenue Refunding Bonds, Series 2018C. The Series 2018C bonds were issued as tax-exempt fixed rate bonds with a final maturity of November 15, 2038. Proceeds from the transaction were used to refund $181.135 Triborough Bridge and Tunnel Authority General Revenue Bonds, Subseries 2009A-2.

On September 26, 2018, MTA effectuated a mandatory tender and remarketed $107.280 Triborough Bridge and Tunnel Authority General Revenue Variable Rate Bonds, Series 2001B because its irrevocable direct-pay LOC relating to the Series 2001B Bonds issued by State Street Bank, was expiring by its terms. The Series 2001B Bonds were remarketed in Term Rate Mode as Secured Overnight Financing Rate (SOFR) Tender Notes with a purchase date of September 26, 2019.

On October 4, 2018, MTA issued $125.000 of Triborough Bridge and Tunnel Authority General Revenue Variable Rate Bonds, Series 2018D. The Series 2018D bonds were issued in Term Rate Mode as tax-exempt SOFR Tender Notes with a purchase date of October 1, 2020, and with an interest rate of 67% of SOFR plus 0.50%. The Series 2018D bonds have a final maturity of November 15, 2038.

On October 30, 2018, MTA effectuated a mandatory tender and remarketed $162.995 of Triborough Bridge and Tunnel Authority General Revenue Variable Rate Bonds, Series 2002F because the irrevocable direct-pay Letter of Credit (LOC) relating to the Series 2002F bonds issued by Landesbank Hessen-Thüringen Girozentrale was expiring by its terms and was substituted with an irrevocable direct-pay LOC issued by Citibank, N.A. The new LOC will expire on October 29, 2021.

On November 28, 2018, MTA effectuated a mandatory tender and remarketed $43.800 Triborough Bridge and Tunnel Authority General Revenue Variable Rate Refunding Bonds, Subseries 2005B-4d and $38.700 Triborough Bridge and Tunnel Authority General Revenue Variable Rate Refunding Bonds, Subseries 2005B-4c because their current interest rate periods were set to expire by their terms. Both the Subseries 2005B-4c and 2005B-4d Bonds were combined into one series, Subseries 2005B-4c, and remarketed as Variable Interest Rate Obligations in Daily Mode supported by an irrevocable direct-pay Letter of Credit issued by U.S. Bank National Association. The LOC will expire on May 26, 2022.

On December 12, 2018, MTA issued $148.470 Triborough Bridge and Tunnel Authority General Revenue Variable Rate Refunding Bonds, Series 2018E. Proceeds from the transaction were used to refund MTA Bridges and Tunnels Subordinate Revenue Bonds, Subseries 2013D-2a and Subseries 2013D-2b. The Series 2018E bonds were issued as taxable Variable Interest Rate Obligations in Weekly Mode supported by an irrevocable direct-pay Letter of Credit (LOC) issued by Bank of America, N.A. The LOC will expire on December 12, 2022.

MTA Bridges and Tunnels Subordinate Revenue Bonds — Prior to 2018, 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.

Refer to Note 8 for further information on Leases.

Debt Limitation — The New York State Legislature has imposed limitations on the aggregate amount of debt that the MTA and MTA Bridges and Tunnels can issue to fund the approved transit and commuter capital programs. The current aggregate ceiling, subject to certain exclusions, is $55,497 compared with issuances totaling approximately $34,397. 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, 2018 and 2017, 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, 2018	December 31, 2017
MTA Transit and Commuter Facilities:		
Transit Facilities Revenue Bonds	$ 169	$ 189
Commuter Facilities Revenue Bonds	172	193
Transit and Commuter Facilities Service Contract Bonds	-	28
Dedicated Tax Fund Bonds	42	61
MTA New York City Transit — Transit Facilities Revenue		
Bonds (Livingston Plaza Project)	-	8
MTA Bridges and Tunnels:		
General Purpose Revenue Bonds	674	694
Special Obligation Subordinate Bonds	102	115
Mortgage Recording Tax Bonds	-	-
Total	$ 1,159	$ 1,288

For the year ended December 31, 2018, MTA refunding transactions decreased aggregate debt service payments by $105 and provided an economic gain of $110. During the year ended December 31, 2017, MTA refunding transactions decreased aggregate debt service payments by $647 and provided an economic gain of $534. Details of bond refunding savings for December 31, 2018 and December 31, 2017 are as follows:

Bonds Refunded in 2018 (In millions)	Series	Date issued	Par value Refunded	Debt Service Savings
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

Bonds Refunded in 2017 (In millions)	Series	Date issued	Par value Refunded	Debt Service Savings
Transportation Revenue Bonds	TRB 2017A-2	03/16/2017	$ 137	$ 22
	TRB 2017B	09/20/2017	662	91
	TRB 2017C	12/14/2017	2,021	170
	TRB 2017D	12/21/2017	643	56
			3,463	339
Dedicated Tax Fund Bonds	DTF 2017B-2	05/17/2017	371	47
MTA Bridges and Tunnels General Revenue Bonds	TBTA 2017B	01/19/2017	903	199
	TBTA 2017C-1	11/17/2017	521	62
			1,424	261
Total Bond Refunding Savings			$ 5,258	$ 647

For the year ended December 31, 2018, the accounting gain on bond refundings totaled $1. For the year ended December 31, 2017, the accounting loss on bond refundings totaled $359.

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

(In millions)	December 31, 2016	(Gain)/ loss on refunding	Current year amortization	December 31, 2017	(Gain)/loss on refunding	Current year amortization	December 31, 2018
MTA:							
Transportation Revenue Bonds	$ 557	$ 222	$ (51)	$ 728	$ (2)	$ (56)	$ 670
State Service Contract Bonds	(7)	-	(3)	(10)	-	(2)	(12)
Dedicated Tax Fund Bonds	215	55	(16)	254	-	(16)	238
	765	277	(70)	972	(2)	(74)	896
TBTA:							
General Revenue Bonds	171	82	(20)	233	1	(25)	209
Subordinate Revenue Bonds	32	-	(2)	30	-	3	33
	203	82	(22)	263	1	(22)	242
Total	**$ 968**	**$ 359**	**$ (92)**	**$ 1,235**	**$ (1)**	**$ (96)**	**$ 1,138**

Debt Service Payments — Future principal and interest debt service payments at December 31, 2018 are as follows (in millions):

	MTA		MTA BRIDGES AND TUNNELS		Debt Service	
	Principal	Interest	Principal	Interest	Principal	Interest
2019	$ 2,235	$ 1,447	$ 317	$ 347	$ 2,552	$ 1,794
2020	1,497	1,354	321	336	1,818	1,690
2021	2,447	1,242	324	322	2,771	1,564
2022	816	1,176	336	307	1,152	1,483
2023	975	1,094	362	291	1,337	1,385
2024-2028	5,284	4,091	2,138	1,177	7,422	5,268
2029-2033	6,332	2,980	2,351	701	8,683	3,681
2034-2038	5,549	1,975	1,346	399	6,895	2,374
2039-2043	3,424	937	667	135	4,091	1,072
2044-2048	1,222	337	497	30	1,719	367
2049-2053	764	137	26	2	790	139
2054-2058	626	29	-	-	626	29
Thereafter	-	-	-	-	-	-
	$ 31,171	$ 16,799	$ 8,685	$ 4,047	$ 39,856	$ 20,846

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, 2018 are as follows:

Loans Payable (in millions)

Year	Principal	Interest	Total
2019	$ 15	$ 2	$ 17
2020	14	2	16
2021	14	1	15
2022	12	1	13
2023	10	1	11
2024-2028	35	2	37
2029-2033	19	1	20
2034-2038	0	0	0
Total	$ 119	$ 10	$ 129

Current portion	$ 15
Long-term portion	104
Total NYPA Loans Payable	$ 119

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, 2018 and 2017.

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

Resolution	Series	Swap	Provider (Insurer)	Type of Facility	Exp. Date
Transportation Revenue	2002G-1g	Y	TD Bank, N.A.	LOC	11/1/2021
Transportation Revenue	2005D-2	Y	Helaba	LOC	11/10/2022
Transportation Revenue	2005E-1	Y	PNC Bank, National Association	LOC	8/20/2021
Transportation Revenue	2005E-2	Y	Bank of America, N.A.	LOC	12/10/2021
Transportation Revenue	2005E-3	Y	PNC Bank, National Association	LOC	8/20/2021
Transportation Revenue	2012G-2	Y	TD Bank, N.A.	LOC	11/1/2021
Transportation Revenue	2015E-1	N	U.S. Bank National Association	LOC	8/20/2021
Transportation Revenue	2015E-3	N	Bank of America, N.A.	LOC	9/2/2022
Transportation Revenue	2015E-4	N	PNC Bank, National Association	LOC	9/3/2021
Dedicated Tax Fund	2002B-1	N	Bank of Tokyo 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	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, 2018 and 2017, classified by type, and the changes in fair value of such derivative instruments from the year ended December 31, 2017 are as follows:

Derivative Instruments - Summary Information

(in $ millions)

Bond Resolution Credit	Underlying Bond Series	Type of Derivative	Cash Flow or Fair Value Hedge	Effective Methodology	Trade/Hedge Association Date	As of December 31, 2018 Notional Amount	As of December 31, 2018 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)

Derivative Instruments - Summary Information

(in $ millions)

Bond Resolution Credit	Underlying Bond Series	Type of Derivative	Cash Flow or Fair Value Hedge	Effective Methodology	Trade/Hedge Association Date	As of December 31, 2017 Notional Amount	As of December 31, 2017 Fair Value
Cashflow Hedges							
MTA Bridges and Tunnels Senior Revenue Bonds	2002F & 2003B-2 (Citi 2005B)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	$ 191.300	$ (29.658)
MTA Bridges and Tunnels Senior Revenue Bonds	2005B-2,3,4	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	573.900	(88.974)
MTA Bridges and Tunnels Senior Revenue Bonds	2005A (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	22.765	(3.028)
MTA Bridges and Tunnels Senior Revenue Bonds	2001C (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/5/2016	57.475	(2.409)
MTA Bridges and Tunnels Subordinate Revenue Bonds	2000ABCD	SIFMA Fixed Payer	Cash Flow	Synthetic Instrument	8/12/1998	34.150	(1.450)
MTA Dedicated Tax Fund Bonds	2008A	Libor Fixed Payer	Cash Flow	Synthetic Instrument	3/8/2005	326.860	(45.587)
MTA Transportation Revenue Bonds	2002D-2	Libor Fixed Payer	Cash Flow	Synthetic Instrument	7/11/2002	200.000	(65.547)
MTA Transportation Revenue Bonds	2005D & 2005E	Libor Fixed Payer	Cash Flow	Synthetic Instrument	9/10/2004	380.700	(67.631)
MTA Transportation Revenue Bonds	2012G	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/12/2007	357.150	(81.075)
MTA Transportation Revenue Bonds	2002G-1 (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	142.015	(11.405)
MTA Transportation Revenue Bonds	2011B (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	56.220	(14.961)
					Total	$ 2,342.535	$ (411.725)

	Changes In Fair Value		Fair Value at December 31, 2018		
	Classification	Amount (in millions)	Classification	Amount (in millions)	Notional (in millions)
Government activities					
Cash Flow hedges:					
Pay-fixed interest rate swaps	Deferred outflow of resources	$78.790	Debt	$(332.935)	$2,279.830

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, 2018).

Metropolitan Transportation Authority						
Related Bonds	**Notional Amount as of 12/31/18**	**Effective Date**	**Maturity Date**	**Terms**	**Counterparty and Ratings(S&P / Moody's / Fitch)**	**Fair Value as of 12/31/18**
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)	$ (55.474)
TRB 2005D & 2005E	274.395	11/02/05	11/01/35	Pay 3.561%; receive 67% 1M LIBOR	UBS AG (A+ / Aa3 / AA-)	(40.411)
TRB 2005E	91.465	11/02/05	11/01/35	Pay 3.561%; receive 67% 1M LIBOR	AIG Financial Products [1] (BBB+ / Baa1 / BBB+)	(13.471)
TRB 2012G	356.775	11/15/12	11/01/32	Pay 3.563%; receive 67% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	(66.854)
DTF 2008A	324.670	03/24/05	11/01/31	Pay 3.3156%; receive 67% 1M LIBOR	Bank of New York Mellon (AA- / Aa2 / AA)	(36.330)
Total	$ 1,247.305					$ (212.540)

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

MTA Bridges and Tunnels						
Related Bonds	Notional Amount as of 12/31/18	Effective Date	Maturity Date	Terms	Counterparty and Ratings (S&P / Moody's / Fitch)	Fair Value as of 12/31/18
TBTA 2002F & 2003B-2	$ 190.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	Citibank, N.A. (A+ / A1 / A+)	$ (24.025)
TBTA 2005B-2	190.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	(24.025)
TBTA 2005B-3	190.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	BNP Paribas North America (A / Aa3 / A+)	(24.025)
TBTA 2005B-4	190.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	UBS AG (A+ / Aa3 / AA-)	(24.024)
TBTA 2000ABCD	11.150	01/01/01	01/01/19	Pay 6.08%; receive SIFMA–15 bp [1]	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	(0.264)
TRB 2002G-1 & 2011B TBTA 2005A & 2001C [2]	130.088 [3]	04/01/16	01/01/30	Pay 3.52%; receive 67% 1M LIBOR	U.S. Bank N.A. (AA- / A1 / AA-)	(12.016) [3]
TRB 2002G-1 & 2011B TBTA 2005A & 2001C [2]	130.087 [3]	04/01/16	01/01/30	Pay 3.52%; receive 67% 1M LIBOR	Wells Fargo Bank, N.A. (A+ / Aa2 / AA-)	(12.016) [3]
Total	$ 1,032.525					$ (120.395)

1 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.

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

SIFMA: Securities Industry and Financial Markets Association Index

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, 2018, 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, 2018, 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	$758,225	33.26%
UBS AG	A+	Aa3	AA-	464,695	20.38
The Bank of New York Mellon	AA-	Aa2	AA	324,670	14.24
Citibank, N.A.	A+	A1	A+	190,300	8.35
BNP Paribas North America, Inc.	A	Aa3	A+	190,300	8.35
U.S. Bank National Association	AA-	A1	AA-	130,088	5.71
Wells Fargo Bank, N.A.	A+	Aa2	AA-	130,087	5.70
AIG Financial Products Corp.	BBB+	Baa1	BBB+	91,465	4.01
Total				**$2,279,830**	**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 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**
JPMorgan Chase Bank, NA	Swap Insurer below A3 (Moody's) and A- (S&P); and MTA Bridges and Tunnels Senior Lienrating below Baa3 (Moody's) and BBB- (S&P)	Below Baa2 (Moody's) or BBB (S&P)
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, 2018, the aggregate mid-market valuation of the MTA's swaps subject to collateral posting agreements was ($184.940); 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, 2018, the aggregate mid-market valuation of MTA Bridges and Tunnels' swaps subject to collateral posting agreements was ($120.362); 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 North America, Inc.; Citibank, N.A.; JPMorgan Chase Bank, NA; UBS AG	Baa1/BBB+: $30 million Baa2/BBB: $15 million Baa3/BBB- & below: Zero	A3/A-: $10 million Baa1/BBB+ & below: Zero

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

MTA Bridges and Tunnels Subordinate Lien		
Counterparty	**MTA Bridges and Tunnels Collateral Thresholds (based on lowest rating)**	**Counterparty Collateral Thresholds (based on lowest rating)**
JPMorgan Chase Bank, NA	N/A–MTA Bridges and Tunnels does not post collateral	$1,000,000
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	Variable-Rate Bonds			
December 31, 2018	Principal	Interest	Net Swap Payments	Total
2019	55.6	48.6	(5.2)	99.0
2020	38.4	46.5	(4.9)	80.0
2021	58.3	44.9	(4.7)	98.5
2022	63.3	42.6	(4.4)	101.4
2023	65.7	40.1	(4.1)	101.6
2024-2028	328.7	173.3	(15.5)	486.6
2029-2033	790.8	423.2	(6.5)	1,207.6
2034-2038	108.4	22.7	(1.1)	130.1

MTA Bridges and Tunnels (in millions)				
Year Ended	Variable-Rate Bonds			
December 31, 2018	Principal	Interest	Net Swap Payments	Total
2019	43.4	38.0	(6.9)	74.5
2020	25.4	37.0	(6.9)	55.6
2021	26.6	36.0	(6.8)	55.8
2022	27.6	34.9	(6.8)	55.7
2023	28.6	33.8	(6.8)	55.6
2024-2028	201.9	144.5	(32.0)	314.4
2029-2033	644.2	43.2	(10.1)	677.3
2034-2038	-	2.5	-	2.5

8. LEASE TRANSACTIONS

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

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

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

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

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

Under the terms of the sale/leaseback agreements, the MTA initially received $294, which was utilized as follows: In the case of one of the leases, the MTA paid $97 to an affiliate of one of the lenders to the third party, which affiliate has the obligation to pay to the MTA an amount equal to the rent obligations under the lease attributable to the debt service on the loan from such third party's lender. The obligations of the affiliate of such third party's lender are guaranteed by American International Group, Inc. In the case of the other lease, the MTA purchased U.S. Treasury debt securities in amounts and with maturities, which are sufficient for the MTA to make the lease rent payments equal to the debt service on the loan from the lender to that third party. In the case of both of the leases, the MTA also purchased Resolution Funding Corporation ("REFCO") debt securities that mature in 2030.Under an agreement with AIG Matched Funding Corp. (guaranteed by American International Group, Inc.), AIG Matched Funding Corp. receives the proceeds from the REFCO debt securities at maturity and is obligated to pay to the MTA amounts sufficient for the MTA to pay the remainder of the regularly scheduled lease rent payments under those leases and the purchase price due upon exercise by the MTA of the purchase options if exercised. The amount remaining after payment of transaction expenses, $24, was the MTA's net benefit from these two transactions.

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

On December 17, 2008, MTA terminated the Ambac Assurance Corp.surety bond for the lease transaction that closed on September 25, 2003 and since then MTA has provided short-term U.S. Treasury debt obligations as replacement collateral. As of December 31, 2018, the market value of total collateral funds was $37.7.

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, 2018, the market value of total collateral funds was $53.1.

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, 2018:

Year	ERY	WRY	Total
2019	18	16	34
2020	19	16	35
2021	19	32	51
2022	19	33	52
2023	19	33	52
Thereafter	868	1,525	2,393
Total	**$962**	**$1,655**	**$2,617**

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, 2018, for the MTA New York City Transit, MTA Bridges and Tunnels and MTA (including MTA Bus, MTA Capital Construction Company and MTA Business Service Center) were 57.6%, 7.5% and 34.9%, respectively. MTAs' sublease is for a year-to-year term, automatically extended, except upon the giving of a non-extension notice by MTA. The lease is comprised of both operating and capital elements, with the portion of the lease attributable to the land recorded as an operating lease, and the portion of the lease attributable to the building recorded as a capital lease. The total annual rental payments over the initial lease term are $1,602 with rent being abated from the commencement date through June 30, 1999. The office building at 2 Broadway, is principally occupied by MTA New York City Transit, MTA Bridges and Tunnels, MTA Capital Construction, and MTAHQ.

MTA reflected a capital lease obligation, as of December 31, 2018 and 2017, of $234 and $228, respectively. The MTA made rent payments of $25 and $25 for the years ended December 31, 2018 and 2017, respectively. MTA pays the lease payments on behalf of MTA New York City Transit and MTA Bridges and Tunnels and subsequently makes monthly chargebacks in the form of rental payments. During 2018, the total of the rental payments charged to MTA New York City Transit and MTA Bridges and Tunnels was $4.52 and $1.84 less, respectively, than the lease payment made by MTA on behalf of MTA New York City Transit and MTA Bridges and Tunnels.

The adjusted capital lease for the aforementioned building is being amortized over the remaining life of the lease. The cost of the building and related accumulated amortization at December 31, 2018 and 2017, is as follows (in millions):

	December 31, 2018	December 31, 2017
Capital lease - building	$196	$196
Less accumulated amortization	(92)	(88)
Capital lease - building - net	$104	$108

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 $67.4 and $68.1 for the years ended December 31, 2018 and 2017, respectively.

At December 31, 2018, the future minimum lease payments under non-cancelable leases are as follows (in millions):

Years	Operating	Capital
2019	$ 79	$ 24
2020	78	33
2021	75	24
2022	80	75
2023	80	19
2024–2028	416	107
2029–2033	446	557
2034–2038	313	159
2039–2043	275	175
2044–2048	264	174
Thereafter	261	200
Future minimum lease payments	$ 2,367	1,547
Amount representing interest		(1,100)
Total present value of capital lease obligations		447
Less current present value of capital lease obligations		4
Noncurrent present value of capital lease obligations		$ 443

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

Capital Leases Schedule

For the Year Ended December 31, 2017
(in millions)

Description	December 31, 2016	Increase	Decrease	December 31, 2017
Sumitomo	$ 15	$ -	$ -	$ 15
Met Life	5	1	-	6
Met Life Equity	19	-	-	19
Bank of New York	22	-	-	22
Bank of America	34	3	-	37
Bank of America Equity	16	-	-	16
Sumitomo	35	1	5	31
Met Life Equity	50	2	-	52
Grand Central Terminal & Harlem Hudson Railroad Lines	14	-	-	14
2 Broadway Lease Improvement	169	4	-	173
2 Broadway	54	1	-	55
Total MTA Capital Lease	$ 433	$ 12	$ 5	$ 440
Current Portion Obligations under Capital Lease	4			4
Long Term Portion Obligations under Capital Lease	$ 429			$ 436

9. FUTURE OPTION

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

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

10. ESTIMATED LIABILITY ARISING FROM INJURIES TO PERSONS

A summary of activity in estimated liability as computed by actuaries arising from injuries to persons, including employees, and damage to third-party property for the years ended December 31, 2018 and 2017 is presented below (in millions):

	December 31, 2018	December 31, 2017
Balance - beginning of year	$ 3,851	$ 3,441
Activity during the year:		
Current year claims and changes in estimates	870	832
Claims paid	(467)	(422)
Balance - end of year	4,254	3,851
Less current portion	(454)	(415)
Long-term liability	$ 3,800	$ 3,436

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 $106 and $13 for the December 31, 2018 and 2017, respectively. A summary of the activity in pollution remediation liability at December 31, 2018 and 2017 were as follows:

	December 31, 2018	December 31, 2017
Balance at beginning of year	$ 79	$ 88
Current year expenses/changes in estimates	106	13
Current year payments	(46)	(22)
Balance at end of year	139	79
Less current portion	31	20
Long-term liability	$ 108	$ 59

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, 2018 and 2017 are presented below:

	Balance December 31, 2016	Additions	Reductions	Balance December 31, 2017	Additions	Reductions	Balance December 31, 2018
Current liabilities:							
Accounts payable	$ 526	$ 81	$ -	$ 607	$ -	$ (137)	$ 470
Interest	226	-	(22)	204	6	-	210
Salaries, wages and payroll taxes	251	56	-	307	20	-	327
Vacation and sick pay benefits	911	77	-	988	32	-	1,020
Current portion — retirement and death benefits	15	-	(1)	14	2	-	16
Capital accrual	436	-	(24)	412	325	-	737
Unearned premiums	149	106	-	255	9	-	264
Other accrued expenses	499	107	-	606	87	-	693
Unearned revenues	571	23	-	594	210	-	804
Total current liabilities	**$ 3,584**	**$ 450**	**$ (47)**	**$ 3,987**	**$ 691**	**$ (137)**	**$ 4,541**
Non-current liabilities:							
Contract retainage payable	$ 309	$ 67	$ -	376	$ 30	$ -	$ 406
Other long-term liabilities	317	30	-	347	29	-	376
Total non-current liabilities	**$ 626**	**$ 97**	**$ -**	**$ 723**	**$ 59**	**$ -**	**$ 782**

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	JPM Ventures Energy Corporation	Cargill	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs
Trade Date	1/26/2017	2/28/2017	3/28/2017	4/27/2017	5/30/2017	6/27/2017	7/26/2017	8/29/2017
Effective Date	1/1/2018	2/1/2018	3/1/2018	4/1/2018	5/1/2018	6/1/2018	7/1/2018	8/1/2018
Termination Date	12/31/2018	1/31/2019	2/28/2019	3/31/2019	4/30/2019	5/31/2019	6/30/2019	7/31/2019
Price/Gal	$1.7485	$1.6824	$1.6090	$1.5915	$1.6085	$1.5225	$1.6180	$1.6315
Original Notional Quantity	2,923,252	2,923,256	2,923,255	2,887,174	2,914,270	2,914,264	2,914,252	2,914,252

Counterparty	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Macquarie Energy LLC
Trade Date	9/22/2017	10/26/2017	11/29/2017	12/27/2017	1/31/2018	2/28/2018	3/28/2018	4/24/2018
Effective Date	9/1/2018	10/1/2018	11/1/2018	12/1/2018	1/1/2019	2/1/2019	3/1/2019	4/1/2019
Termination Date	8/31/2019	9/30/2019	10/31/2019	11/30/2019	12/31/2019	1/31/2020	2/29/2020	3/31/2020
Price/Gal	$1.7205	$1.7635	$1.8520	$1.9050	$1.9570	$1.8815	$1.9805	$2.0795
Original Notional Quantity	2,914,244	2,612,515	2,870,561	2,870,574	2,870,565	2,786,237	2,853,500	2,799,258

Counterparty	Goldman Sachs	Goldman Sachs	BOA_ Merrill	Goldman Sachs	Goldman Sachs	Cargill	BOA_ Merrill
Trade Date	5/29/2018	6/26/2018	7/31/2018	8/29/2018	9/25/2018	10/30/2018	11/27/2018
Effective Date	5/1/2019	6/1/2019	7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019
Termination Date	4/30/2020	5/31/2020	6/30/2020	7/31/2020	8/31/2020	9/30/2020	10/31/2020
Price/Gal	$2.1590	$2.1755	$2.1730	$2.2145	$2.2885	$2.2455	$1.9213
Original Notional Quantity	2,841,090	2,841,069	2,820,856	2,831,924	2,831,922	2,831,934	3,023,197

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, 2018, the total outstanding notional value of the ULSD contracts was 49.8 million gallons with a negative fair market value of $12. 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, 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 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**

December 31, 2017	MTA	Metro-North Railroad	Long Island Railroad	New York City Transit Authority	Triborough Bridge and Tunnel Authority	Eliminations	Consolidated Total
Current assets	$ 6,017	$ 227	$ 236	$ 586	$ 471	$ (111)	$ 7,426
Capital assets	9,809	4,828	6,102	41,316	6,005	-	68,060
Other Assets	11,074	5	-	1	4	(9,977)	1,107
Intercompany receivables	751	77	159	1,884	635	(3,506)	-
Deferred outflows of resources	1,748	248	340	1,018	502	(169)	3,687
Total assets and deferred outflows of resources	**$ 29,399**	**$ 5,385**	**$ 6,837**	**$ 44,805**	**$ 7,617**	**$ (13,763)**	**$ 80,280**
Current liabilities	$ 3,017	$ 288	$ 253	$ 1,876	$ 1,039	$ (227)	$ 6,246
Non-current liabilities	33,469	1,185	2,282	21,390	10,093	(116)	68,303
Intercompany payables	2,885	53	34	-	506	(3,477)	1
Deferred inflows of resources	51	21	22	391	21	-	506
Total liabilities and deferred inflows of resources	**$ 39,422**	**$ 1,547**	**$ 2,591**	**$ 23,657**	**$ 11,659**	**$ (3,820)**	**$ 75,056**
Net investment in capital assets	$ (25,162)	$ 4,814	$ 6,102	$ 41,144	$ 1,730	$ (378)	$ 28,250
Restricted	1,484	-	-	-	717	(520)	1,681
Unrestricted	13,655	(976)	(1,856)	(19,996)	(6,489)	(9,045)	(24,707)
Total net position	**$ (10,023)**	**$ 3,838**	**$ 4,246**	**$ 21,148**	**$ (4,042)**	**$ (9,943)**	**$ 5,224**
For the year ended December 31, 2017							
Fare revenue	$ 224	$ 733	$ 728	$ 4,487	$ -	$ -	$ 6,172
Vehicle toll revenue	-	-	-	-	1,912	-	1,912
Rents, freight and other revenue	78	58	53	425	20	(45)	589
Total operating revenue	**302**	**791**	**781**	**4,912**	**1,932**	**(45)**	**8,673**
Total labor expenses	1,282	1,014	1,156	7,088	319	6	10,865
Total non-labor expenses	480	370	417	1,933	222	(48)	3,374
Depreciation	107	240	340	1,682	242	-	2,611
Total operating expenses	**1,869**	**1,624**	**1,913**	**10,703**	**783**	**(42)**	**16,850**
Operating (deficit) surplus	**(1,567)**	**(833)**	**(1,132)**	**(5,791)**	**1,149**	**(3)**	**(8,177)**
Subsidies and grants	357	-	-	317	8	384	1,066
Tax revenue	4,743	-	-	3,033	-	(2,523)	5,253
Interagency subsidy	(1,119)	414	1,504	305	-	(1,104)	-
Interest expense	(1,271)	-	-	(16)	(248)	18	(1,517)
Other	(1,314)	102	-	5	(55)	1,439	177
Total non-operating revenues (expenses)	**1,396**	**516**	**1,504**	**3,644**	**(295)**	**(1,786)**	**4,979**
Loss before appropriations	(171)	(317)	372	(2,147)	854	(1,789)	(3,198)
Appropriations, grants and other receipts externally restricted for capital projects	(443)	409	-	1,860	(572)	1,408	2,662
Change in net position	(614)	92	372	(287)	282	(381)	(536)
Net position, beginning of the year	(9,409)	3,746	3,874	21,435	(4,477)	(9,562)	5,607
Cumulative effect of change in accounting principle	-	-	-	-	153	-	153
Net position, end of year	$ (10,023)	$ 3,838	$ 4,246	$ 21,148	$ (4,042)	$ (9,943)	$ 5,224
For the year ended December 31, 2017							
Net cash (used in) / provided by operating activities	$ (1,244)	$ (466)	$ (781)	$ (2,835)	$ 1,413	$ 79	$ (3,834)
Net cash provided by / (used in) non-capital financing activities	5,898	536	798	3,732	(732)	(3,631)	6,601
Net cash (used in) / provided by capital and related financing activities	(5,031)	(69)	(24)	(908)	(604)	3,538	(3,098)
Net cash provided by / (used in) investing activities	51	-	-	6	(189)	14	(118)
Cash at beginning of year	525	14	12	61	120	-	732
Cash at end of year	**$ 199**	**$ 15**	**$ 5**	**$ 56**	**$ 8**	**$ -**	**$ 283**

16. SUBSEQUENT EVENTS

On January 3, 2019, MTA executed a 2,856,019 gallon ultra-low sulfur diesel fuel hedge at an all-in price of $1.7885 (whole dollars) per gallon. The hedge covers the period from December 2019 through November 2020.

On January 29, 2019, MTA executed a 2,856,014 gallon ultra-low sulfur diesel fuel hedge at an all-in price of $1.939 (whole dollars) per gallon. The hedge covers the period from January 2020 through December 2020.

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

On February 28, 2019, MTA executed a 2,793,123 gallon ultra-low sulfur diesel fuel hedge at an all-in price of $2.052 (whole dollars) per gallon. The hedge covers the period from February 2020 through January 2021.

On March 19, 2019, MTA issued $750 Dedicated Tax Fund Bond Anticipation Notes, Series 2019A to (i) finance existing approved transit and commuter projects, (ii) pay interest on the Series 2019A Notes accruing through maturity, and (iii) pay certain financing, legal, and miscellaneous expenses. The Series 2019A Notes bear interest at a rate of 5.00% and have a final maturity of March 1, 2022.

On March 28, 2019, MTA effectuated a mandatory tender and remarketed $50 of Transportation Revenue Bonds, Subseries 2012A-3.

On March 28, 2019, MTA executed a 2,849,714 gallon ultra-low sulfur diesel fuel hedge at an all-in price of $2.005 (whole dollars) per gallon. The hedge covers the period from March 2020 through February 2021.

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

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

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

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

REQUIRED SUPPLEMENTARY INFORMATION

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

($ in thousands)

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

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

REQUIRED SUPPLEMENTARY INFORMATION

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

($ in thousands)

	NYCERS Plan			
Plan Measurement Date:	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015
MTA's proportion of the net pension liability	23.682%	24.096%	23.493%	23.585%
MTA's proportionate share of the net pension liability	$ 4,176,941	$ 5,003,811	$ 5,708,052	$ 4,773,787
MTA's actual covered payroll	$ 3,216,837	$ 3,154,673	$ 3,064,007	$ 2,989,480
MTA's proportionate share of the net pension liability as a percentage of the MTA's covered payroll	129.846%	158.616%	186.294%	159.686%
Plan fiduciary net position as a percentage of the total pension liability	78.826%	74.805%	69.568%	73.125%

	NYSLERS Plan			
Plan Measurement Date:	March 31, 2018	March 31, 2017	March 31, 2016	March 31, 2015
MTA's proportion of the net pension liability	0.327%	0.311%	0.303%	0.289%
MTA's proportionate share of the net pension liability	$ 10,553	$ 29,239	$ 48,557	$ 9,768
MTA's actual covered payroll	$ 105,269	$ 96,583	$ 87,670	$ 87,315
MTA's proportionate share of the net pension liability as a percentage of the MTA's covered payroll	10.025%	30.273%	55.386%	11.187%
Plan fiduciary net position as a percentage of the total pension liability	98.240%	94.703%	90.685%	97.947%

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

REQUIRED SUPPLEMENTARY INFORMATION

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

($ in thousands)

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

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

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

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

REQUIRED SUPPLEMENTARY INFORMATION

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

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

REQUIRED SUPPLEMENTARY INFORMATION

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

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

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans **(continued)**

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

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans **(continued)**

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

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans **(continued)**

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

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans **(continued)**

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

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of MTA's Contributions for All Pension Plans **(concluded)**

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

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

Changes of Benefit Terms:

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

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

Changes of Assumptions:

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

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

(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)	OPEB Plan
Plan Measurement Date (December 31):	**2017**
Total OPEB liability:	
Service cost	$ 884,548
Interest on total OPEB liability	731,405
Effect of plan changes	27,785
Effect of economic/demographic (gains) or losses	13,605
Effect of assumption changes or inputs	911,465
Benefit payments	(650,994)
Net change in total OPEB liability	1,917,814
Total OPEB liability—beginning	18,787,254
Total OPEB liability—ending (a)	20,705,068
Plan fiduciary net position:	
Employer contributions	650,994
Net investment income	47,370
Benefit payments	(650,994)
Net change in plan fiduciary net position	47,370
Plan fiduciary net position—beginning	322,982
Plan fiduciary net position—ending (b)	370,352
Net OPEB liability—ending (a)-(b)	$ 20,334,716
Plan fiduciary net position as a percentage of the total OPEB liability	1.79%
Covered payroll	$ 5,394,332
Net OPEB liability as a percentage of covered payroll	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)	**2018**	**2017**
Actuarially Determined Contribution	N/A	N/A
Actual Employer Contribution (1)	$ 696,065	$ 650,994
Contribution Deficiency (Excess)	N/A	N/A
Covered Payroll	$ 6,903,700	$ 5,394,200
Actual Contribution as a Percentage of Covered Payroll	10.08%	12.07%

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

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

(A Component Unit of the State of New York)

REQUIRED SUPPLEMENTARY INFORMATION

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

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

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

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SUPPLEMENTARY INFORMATION

SCHEDULE OF CONSOLIDATED RECONCILIATION BETWEEN FINANCIAL PLAN AND FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2018
($ in millions)

Category	Financial Plan Actual	Statement GAAP Actual	Variance
REVENUE:			
Farebox revenue	$ 6,153	$ 6,155	$ 2
Vehicle toll revenue	1,967	1,976	9
Other operating revenue	662	605	(57)
Total revenue	8,782	8,736	(46)
OPERATING EXPENSES:			
Labor:			
Payroll	5,213	5,230	17
Overtime	1,051	1,070	19
Health and welfare	1,322	1,156	(166)
Pensions	1,093	966	(127)
Other fringe benefits	880	880	-
Postemployment benefits	2,425	1,749	(676)
Reimbursable overhead	(494)	(555)	(61)
Total labor expenses	11,490	10,496	(994)
Non-labor:			
Electric power	475	482	7
Fuel	186	185	(1)
Insurance	11	(29)	(40)
Claims	376	437	61
Paratransit service contracts	452	455	3
Maintenance and other	779	633	(146)
Professional service contract	576	545	(31)
Pollution remediation project costs	20	106	86
Materials and supplies	668	637	(31)
Other business expenses	225	215	(10)
Total non-labor expenses	3,768	3,666	(102)
Depreciation	2,697	2,679	(18)
Other Expenses Adjustment	134	-	(134)
Total operating expenses	18,089	16,841	(1,248)
NET OPERATING LOSS	$ (9,307)	$ (8,105)	$ 1,202

(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, 2018
($ in millions)

Accrued Subsidies	Financial Plan Actual	Financial Statement GAAP Actual	Variance	
Mass transportation operating assistance	$ 1,687	$ 1,687	$ -	
Mass transit trust fund subsidies	629	633	4	{1}
Mortgage recording tax 1 and 2	445	447	2	{1}
MRT transfer	(10)	(9)	1	{1}
Urban tax	647	700	53	
State and local operating assistance	376	376	-	
Station maintenance	172	168	(4)	
Connecticut Department of Transportation (CDOT)	127	134	7	
Subsidy from New York City for MTA Bus and SIRTOA	588	560	(28)	{1}
NYS Grant for debt service	-	1	1	{3}
Build American Bonds Subsidy	-	90	90	
Mobility tax	2,073	1,965	(108)	{1}
NYS/NYC Subway Action Plan	508	508	-	{1}
Other non-operating income	-	(22)	(22)	{2}
Total accrued subsidies	7,242	7,238	(4)	
Net operating deficit before subsidies and debt service	(9,307)	(8,105)	1,202	
Debt Service	(2,559)	(1,460)	1,099	
Loss on disposal of subway cars	-	(125)	(125)	
Conversion to Cash basis: Depreciation	2,697	-	(2,697)	
Conversion to Cash basis: OPEB Obligation	1,809	-	(1,809)	
Conversion to Cash basis: GASB 68 pension adjustment	(240)	-	240	
Conversion to Cash basis: Pollution & Remediation	20	-	(20)	
Other Cash Flow adjustments	-	-	-	
Total net operating surplus/(deficit) before appropriations, grants and other receipts restricted for capital projects	$ (338)	$ (2,452)	$ (2,114)	

{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, 2018
($ in millions)

Financial Plan Actual Operating Loss at December 31, 2018			**$ (9,307)**
The Financial Plan Actual Includes:			
1	Higher other operating revenues		(46)
2	Higher labor expense primarily from higher OPEB expense projections, which does not reflect GASB No. 75 OPEB implementation		994
3	Higher non-labor expense primarily from higher maintenance expense projections		102
4	Other expense adjustments		152
Total operating reconciling items			**1,202**
Financial Statements Operating Loss at December 31, 2018			**(8,105)**
Financial Plan Deficit after Subsidies and Debt Service			**(338)**
The Financial Plan Actual Includes:			
1	Debt service bond principal payments		1,099
2	Adjustments for non-cash liabilities:		
	Depreciation	(2,697)	
	Unfunded OPEB expense	(1,809)	
	Unfunded GASB No. 68 pension adjustment	240	
	Other non-cash liability adjustment	(20)	(4,286)
The Financial Statement includes:			
3	Lower subsidies and other non-operating revenues and expenses		(129)
4	Total operating reconciling items (from above)		1,202
Financial Statement Loss Before Capital Appropriations			**$ (2,452)**

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INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

To The Members of the Board of
Metropolitan Transportation Authority

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the consolidated financial statements of the Metropolitan Transportation Authority (the "MTA"), a component unit of the State of New York, which comprise the consolidated statement of net position, as of December 31, 2018, and the related consolidated statements of revenues, expenses and changes in net position, consolidated cash flows for the year then ended, and the related notes to the consolidated financial statements, and have issued our report thereon dated May 20, 2019, which contains an explanatory paragraph regarding the MTA requiring significant subsidies from other governmental entities and adoption of Governmental Accounting Standards Board Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions.*

Internal Control over Financial Reporting

In planning and performing our audit of the consolidated financial statements, we considered MTA's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the consolidated financial statements, but not for the purpose of expressing an opinion on the effectiveness of MTA's internal control. Accordingly, we do not express an opinion on the effectiveness of MTA's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the MTA's consolidated financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

We noted certain matters that we reported to the Audit Committee and management of the MTA in a separate letter dated May 20, 2019.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

May 20, 2019

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INDEPENDENT AUDITORS' REPORT ON COMPLIANCE FOR EACH MAJOR FEDERAL PROGRAM; REPORT ON INTERNAL CONTROL OVER COMPLIANCE; AND REPORT ON SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS REQUIRED BY THE UNIFORM GUIDANCE

To The Members of the Board of
Metropolitan Transportation Authority

Report on Compliance for Each Major Federal Program

We have audited the Metropolitan Transportation Authority's (the "MTA"), a component unit of the State of New York, compliance with the types of compliance requirements described in the OMB Compliance Supplement that could have a direct and material effect on each of the MTA's major federal programs for the year ended December 31, 2018. The MTA's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with federal statutes, regulations, and the terms and conditions of its federal awards applicable to its federal programs.

Auditors' Responsibility

Our responsibility is to express an opinion on compliance for each of the MTA's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States; and the audit requirements of *Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the MTA's compliance with those requirements and performing such other procedures, as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of the MTA's compliance.

Opinion on Each Major Federal Program

In our opinion, the MTA complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended December 31, 2018.

Report on Internal Control over Compliance

Management of the MTA is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the MTA's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal programs and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of MTA's internal control over compliance.

A *deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal programs on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

We have audited the consolidated financial statements of the MTA as of and for the year ended December 31, 2018, and have issued our report thereon dated May 20, 2019, which contained an unmodified opinion on those consolidated financial statements. Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditure of federal awards is fairly stated in all material respects in relation to the consolidated financial statements as a whole.

June 7, 2019

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METROPOLITAN TRANSPORTATION AUTHORITY
(A Component Unit of the State of New York)

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
YEAR ENDED DECEMBER 31, 2018

Federal CFDA Number	Federal Agency/Program Description/Grant Title	Pass-through Identifying Number	Grant Agreement Date	Pass-through to subrecipient	Federal Expenditures
	U.S. Department of Transportation/Federal Transit Administration				
20.500	Federal Transit—Capital Investment Grants—Section 3 Discretionary Grants				
	DIRECT - U.S. Department of Transportation/Federal Transit Administration:				
	Federal Transit Cluster:				
	MTA CCC East side Access	NY-03-0344	8/1/2007	$ -	$ 738,615
	Second Avenue Subway Final Design	NY-03-0408	8/4/2006	-	39,610,895
	CNG BUSES	NY-04-0064	8/16/2011	-	1,839,838
	MTA NYCT Bus Radio & Command Center	NY-04-0086	9/12/2012	-	13,497,710
	Intergrated Whole Life Asset Mgmt System	NY-04-0091	9/25/2013	-	1,614,746
	SGR Bus Purchase	NY-04-0092	9/13/2013	-	128,536
	SGR Bus Purchase	NY-04-0093	6/19/2013	-	2,092,953
	MTA FY10 FGM LIRR/MNR/NYCT Projects	NY-05-0113	6/30/2010		17,439,761
	MTA FY11 FGM LIRR/MNR/NYCT Projects	NY-05-0115	2/23/2012	-	71,942,395
	MTA FY12 FGM LIRR/MNR/NYCT Projects	NY-05-0116	11/6/2012	-	5,218,915
	Subtotal Federal Transit—Capital Investment Grants—Section 3 Discretionary Grants			-	154,124,364
20.507	Federal Transit—Formula Grants (Urbanized Area Formula Program)—Section 9 and 9A Formula Grants and Operating Assistance Grants				
	DIRECT - U.S. Department of Transportation/Federal Transit Administration:				
	MTA Bus Sec 5307 FFY06 and 07/Security Projects	NY-90-X594	9/24/2008	-	355,302
	MTA Bus 5307 FFY08 and FFY 09	NY-90-X620	9/1/2010	-	1,408,240
	MTA FY10 §5307 LIRR/MNR/NYCT Projects	NY-90-X663	9/13/2011	-	116,164,074
	MTA FY11 §5307 LIRR/MNR/NYCT Projects	NY-90-X674	7/10/2012	-	23,676,532
	MTA Bus FY13 Formula	NY-90-X703	7/10/2013	-	4,998,516
	MTA FY 12 5307 LIRR/MN/NYCT Projects	NY-90-X722	9/19/2013	-	24,457,277
	MTA FY 12 5307 LIRR/MN/NYCT Projects	NY-90-X727	7/31/2014	-	82,066,500
	MTA Bus Radio Cmd Ctr	NY-90-X738	9/19/2014	-	5,424,585
	MTA FY14 §5307 LIRR/MNR/NYCT Projects	NY-90-X749	3/13/2015	-	46,149,131
	MTA FY15 §5307 LIRR/MNR/NYCT	NY-90-X755	9/10/2015	-	4,016,849
	MTA FLEX FFY 2012	NY-95-X037	1/4/2013	-	3,852,443
	MTA FLEX FFY 2013	NY-95-X042	11/1/2013	-	7,685,368
	MTA Flex FFY 2014	NY-95-X051	5/27/2015	-	97,799
	MTA BUS §5307 FY10-FY14 Projects	NY-2016-025	8/24/2016	-	4,693,256
	MTA BUS - Bus Radio System Funding	NY-2016-029	8/24/2016	-	107,970
	MTA BUS §5307 FY10-FY14 Projects	NY-2016-046	8/24/2016	-	3,502,887
	MTA NYCT and MNR (Sixth Capital Program) 5307	NY-2017-044	9/18/2017	-	4,392,631
	MTA FY16-17 5307 NYCT/MNR/LIRR	NY-2017-047	9/18/2017	-	64,348,933
	MTA Flex Second Avenue Subway, Phase 1	NY-2017-053	9/22/2017	-	10,462,760
	Commuter Flexible Funded Projects FFY 2017	NY-2018-013	6/13/2018	-	2,379,026
	MTA NYCT Section 5307 R211 Subway Car	NY-2018-059	9/10/2018	-	8,533,999
	MTA FY17 / FY18 § 5307 NYCT/MNR/LIRR	NY-2018-071	9/22/2017	-	16,216,541
	Subtotal Federal Transit—Formula Grants (Urbanized Area Formula Program)—Section 9 and 9A Formula Grants and Operating Assistance Grants			-	434,990,619
20.525	Federal Transit Administration—State of Good Repair Grants Program				
	DIRECT - U.S. Department of Transportation/Federal Transit Administration:				
	MTA FY 13 SGR LIRR/MNR/NYCT §5337	NY-54-0001	5/7/2014	-	10,550,801
	MTA FY14 SGR LIRR/MNR/NYCT §5337	NY-54-0004	3/3/2015	-	68,947,126
	MTA FY16 SGR LIRR/MNR/NYCT §5337	NY-2016-044	5/23/2017	-	7,628,444
	MTA FY16-17 SGR LIRR/MNR/NYCT §5337	NY-2017-043	9/12/2017	-	57,036,985
	MTA FY15 SGR LIRR/MNR/NYCT §5337	NY-2017-046	8/24/2015	-	52,546,879
	MTA NYCT Section 5337 R211 Subway Car	NY-2018-060	9/11/2018	-	58,254,423
	MTA FY15 SGR LIRR/MNR/NYCT §5337	NY-2018-072	9/20/2018	-	45,663,744
				-	300,628,402
20.526	MTA BUS SEC.5339	NY-2016-040	9/16/2016	-	1,338,724
	MTA BUS SEC.5339	NY-2016-042	9/20/2016	-	220,515
	MTA BUS SEC.5339	NY-2017-045	8/29/2017	-	4,177,892
				-	5,737,131
	Subtotal Federal Transit Administration—State of Good Repair Grants Program			-	306,365,533
	Total Federal Transit Cluster			$ -	$ 895,480,516

METROPOLITAN TRANSPORTATION AUTHORITY
(A Component Unit of the State of New York)

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
YEAR ENDED DECEMBER 31, 2018

Federal CFDA Number	Federal Agency/Program Description/Grant Title	Pass-through Identifying Number	Grant Agreement Date	Pass-through to Subrecipients	Federal Expenditures
	U.S. Department of Transportation/Federal Railroad Administration (Continued)				
	Direct - U.S. Department of Transportation/Federal Railroad Administration:				
20.321	The Advanced Civil Speed Enforcement System (ACSES)	UMFR-TEC-0005	4/28/2016	$ -	$ 3,131,900
	Direct - U.S. Department of Transportation/Federal Transit Administration:				
20.514	Public Transportation Research - Wheel/Rail Character Monitor & An	NY-26-7113	8/5/2015	-	1,210,953
20.521	GCT Elevator	NY-57-X018	9/10/2010	-	16,118
20.522	Alternatives Analysis	NY-39-0001	9/23/2010	-	355,117
20.527	Public Transportation Emergency Relief Program				
	NY MTA Hurricane Sandy Relief 5324	NY-44-X001	4/5/2013	-	34,219
	NY MTA Hurricane Sandy Relief 5324	NY-44-X007	1/28/2014	-	34,268,524
	NY MTA Hurricane Sandy Relief 5324	NY-44-X008	9/23/2014	-	70,241,897
	NY MTA Hurricane Sandy Relief 5324	NY-44-X011	5/11/2015	-	34,571,630
	NY MTA Hurricane Sandy Relief 5324	NY-44-X012	2/12/2015	-	103,465,352
	MNR Power&Signals Resiliency Improvement	NY-44-X015	8/18/2015	-	2,801,806
	Emergency Communications Enhancements	NY-44-X016	9/2/2015	-	3,035,991
	Internal Station Hardening NYCT	NY-44-X017	9/2/2015	-	(1,296,870)
	MTA NYCT CR Protection of Street Level Openings in Flood Prone A	NY-2017-032	8/22/2017	-	45,933,466
	MTA NYCT CR Sec. 5324 Emergency Communications Enhancements	NY-2017-033	8/22/2017	-	772,696
	NY MTA Hurricane Sandy Relief 5324	NY-2017-052	8/31/2017	-	78,121,353
	MNR Power&Signals Resiliency Improvement	NY-2018-016	6/13/2018	-	865,168
	MTA NYCT CR Sec. 5324 Internal Station Hardening	NY-2018-017	6/20/2018	-	11,731
	MTA LIRR CR Sec. 5324 New York-New Jersey River to River Rail Res	NY-2018-039	9/5/2018	-	1,245,125
	Total Public Transportation Emergency Relief Program			-	374,072,088
	TOTAL FROM U.S. DEPARTMENT OF TRANSPORTATION			-	1,274,266,692
	U.S. Department of Homeland Security:				
	Pass-Through - State of New York Department of Emergency Management:				
97.036	Disaster Grants—Public Assistance —SANDY 2015	FEMA 4085 DRNY-Capital	1/20/2015	-	62,043,266
	Total Disaster Grants—Public Assistance program			-	62,043,266
	Direct - U.S. Department of Homeland Security:				
97.075	Rail and Transit Security Grant program	FE2015-RA-00018	9/30/2015	4,744,997	6,033,414
	Rail and Transit Security Grant program	FE2016-RA-00016	9/1/2016	3,519,682	11,426,879
	Rail and Transit Security Grant program	FE2017-RA-00024	9/1/2017	166,900	211,211
	Total Rail and Transit Security Grant Program			8,431,579	17,671,504
	TOTAL FROM U.S. DEPARTMENT OF HOMELAND SECURITY			8,431,579	79,714,770
	TOTAL EXPENDITURES OF FEDERAL AWARDS			$ 8,431,579	$ 1,353,981,462

See accompanying Notes to Schedule of Expenditures of Federal Awards.

(Concluded)

NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS YEAR ENDED DECEMBER 31, 2018

1. BASIS OF ACCOUNTING

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") as follows:

Metropolitan Transportation Authority and Related Groups (Component Units):

- Metropolitan Transportation Authority Headquarters ("MTAHQ") provides support in budget, cash management, finance, legal, real estate, treasury, risk and insurance management, and other services to the related groups listed below.

- The Long Island Rail Road Company ("MTA Long Island Rail Road") provides passenger transportation between New York City ("NYC") and Long Island.

- Metro-North Commuter Railroad Company ("MTA Metro-North Railroad") provides passenger transportation between NYC and the suburban communities in Westchester, Dutchess, Putnam, Orange, and Rockland counties in NYS and New Haven and Fairfield counties in Connecticut.

- Staten Island Rapid Transit Operating Authority ("MTA Staten Island Railway") provides passenger transportation on Staten Island.

- First Mutual Transportation Assurance Company ("FMTAC") provides primary insurance coverage for certain losses, some of which are reinsured, and assumes reinsurance coverage for certain other losses.

- MTA Capital Construction Company ("MTA Capital Construction") provides oversight for the planning, design and construction of current and future major MTA system-wide expansion projects.

- MTA Bus Company ("MTA Bus") operates certain bus routes in areas previously served by private bus operators pursuant to franchises granted by the City of New York.

- MTAHQ, MTA Long Island Rail Road, MTA Metro-North Railroad, MTA Staten Island Railway, FMTAC, MTA Capital Construction, and MTA Bus, collectively are referred to herein as MTA. MTA Long Island Rail Road and MTA Metro-North Railroad are referred to collectively as the Commuter Railroads.

- New York City Transit Authority ("MTA New York City Transit") and its subsidiary, Manhattan and Bronx Surface Transit Operating Authority ("MaBSTOA"), provide subway and public bus service within the five boroughs of New York City.

- Triborough Bridge and Tunnel Authority ("MTA Bridges and Tunnels") operates seven toll bridges, two tunnels, and the Battery Parking Garage, all within the five boroughs of New York City.

The subsidiaries and affiliates, considered component units of the MTA, are operationally and legally independent of the MTA. These related groups enjoy certain rights typically associated with separate legal status including, in some cases, the ability to issue debt. However, they are included in the MTA's consolidated 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 requirements 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.

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.

2. BASIS OF PRESENTATION

The accompanying schedule of expenditures of federal awards (the Schedule") includes the federal award activity of the Metropolitan Transportation Authority (the "MTA"), a component unit of the State of New York under programs of the federal government for the year ended December 31, 2018. The information in this Schedule is presented in accordance with the requirements of *Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("Uniform Guidance"). Because the Schedule presents only a selected portion of the operations of the MTA, it is not intended to and does not present the financial position, changes in net position, or cash flows of the MTA.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICY

Expenditures reported on the Schedule are reported on the cash basis of accounting. Such expenditures are recognized following the cost principles contained in the Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement. Negative amounts shown on the Schedule represent adjustments or credits made in the normal course of business to amounts reported as expenditures in prior years.

4. **PASS-THROUGH PROGRAMS**

When the MTA receives Federal funds from a government entity other than the Federal government ("pass-through"), the funds are accumulated based upon the Catalog of Federal Domestic Assistance ("CFDA") number advised by the pass-through grantor.

5. **INDIRECT RATE**

The MTA has not elected to use the 10% de minimis indirect cost rate allowed under the Uniform Guidance.

6. **RELATIONSHIP TO FEDERAL AND STATE FINANCIAL REPORTS**

The regulations and guidelines governing the preparation of Federal and state financial reports vary by state and Federal agency and among programs administered by the same agency. Accordingly, the amounts reported in the Federal and state financial reports do not necessarily agree with the amounts reported in the accompanying Schedule of Expenditures of Federal Awards, which is prepared as explained in Note 3 above.

7. **RAILROAD REVITALIZATION AND REGULATORY REFORM ACT OF 1976 LOAN (RRIF PROGRAM)**

The RRIF program provided direct loans and loan guarantees to State and local governments, interstate compacts consented to by Congress under section 410(a) of the Amtrak Reform and Accountability Act of 1997 (49 U.S.C. 24101). During 2016, MTA expended $146 million under the RRIF Program, which is administrated by U.S. Department of Transportation, Federal Railroad Administration. The opening balance and transactions relating to this program is included in the MTA's consolidated financial statements. During 2018, there were no reimbursement and/or expenditures for Railroad Rehabilitation and Improvement Financing Positive Train Control Project, therefore is not included in the Schedule of Expenditures of Federal Awards. The balance of loans outstanding as of December 31, consists of:

CFDA 20.316 - Railroad Rehabilitation and Improvement Financing - Positive Train Control Project

Outstanding Balance at December 31, 2017	$ 146,472,065
Additon to Loans	-
Deletion from Loans	5,803,553
Outstanding Balance at December 31, 2018	$ 140,668,512

METROPOLITAN TRANSPORTATION AUTHORITY
(A Component Unit of the State of New York)

SCHEDULE OF FINDINGS AND QUESTIONED COSTS
YEAR ENDED DECEMBER 31, 2018

1. SUMMARY OF AUDITORS' RESULTS

Financial Statements

Type of auditors' report issued:	Unmodified	
Internal control over financial reporting:		
Material weakness(es) identified	___ Yes	✓ No
Significant deficiency(ies) identified?	___ Yes	✓ None Reported
Noncompliance material to financial statements noted?	___ Yes	✓ No

Federal Awards

Internal Control over major programs:		
Material weakness(es) identified	___ Yes	✓ No
Significant deficiency(ies) identified?	___ Yes	✓ None Reported
Type of auditor's report issued on compliance for Major Programs:	Unmodified	
Any audit findings disclosed that are required to be reported in accordance with Uniform Guidance?	___ Yes	✓ No

SCHEDULE OF FINDINGS AND QUESTIONED COSTS (CONTINUED)
YEAR ENDED DECEMBER 31, 2018

2. SUMMARY OF AUDITORS' RESULTS—(CONTINUED)

Identification of major programs:

CFDA Number(s)	Name of Federal Program
20.500/507/535/536	FEDERAL TRANSIT CLUSTER
20.321	THE ADVANCED CIVIL SPEED ENFORCEMENT SYSTEM
97.036	DISASTER GRANTS - PUBLIC ASSISTANCE (PRESIDENTIALLY DECLARED DISASTERS)

Dollar threshold used to distinguish between Type A and Type B programs	$ 4,061,944
Auditee qualified as low-risk auditee?	Yes

3. FINDINGS RELATING TO THE FINANCIAL STATEMENTS REPORTED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

None.

4. FINDINGS AND QUESTIONED COSTS RELATING TO FEDERAL AWARDS

None.

* * * * * *

METROPOLITAN TRANSPORTATION AUTHORITY
(A Component Unit of the State of New York)

SUMMARY SCHEDULE OF PRIOR YEAR AUDIT FINDINGS
YEAR ENDED DECEMBER 31, 2018

Not applicable, since no prior year findings.

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INDEPENDENT AUDITORS' REPORT ON COMPLIANCE FOR EACH MAJOR STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION ASSISTANCE PROGRAM; REPORT ON INTERNAL CONTROL OVER COMPLIANCE; AND REPORT ON SCHEDULE OF STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION ASSISTANCE EXPENDED REQUIRED BY PART 43 OF THE NEW YORK STATE CODIFICATION OF RULES AND REGULATIONS

To the Members of the Board of
Metropolitan Transportation Authority

Report on Compliance for Each Major State of New York Department of Transportation Assistance Program

We have audited the Metropolitan Transportation Authority's (the "MTA"), a component unit of State of New York, compliance with the types of compliance requirements described in the *Part 43 of the New York State Codification of Rules and Regulations* ("NYSCRR") that could have a direct and material effect on each of the MTA's major State of New York Department of Transportation assistance program for the year ended December 31, 2018. The MTA's major State of New York Department of Transportation assistance program is identified in the summary of auditor's results section of the accompanying State of New York Department of Transportation assistance expended schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with State of New York statutes, regulations, and the term and conditions of its state awards applicable to its State of New York Department of Transportation assistance program.

Auditors' Responsibility

Our responsibility is to express an opinion on compliance for the MTA's major State of New York Department of Transportation assistance program based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of the United States; and the audit requirements of NYSCRR. Those standards and NYSCRR require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major State of New York Department of Transportation assistance program occurred. An audit includes examining, on a test basis, evidence about the MTA's compliance with those requirements and performing such other procedures, as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for State of New York Department of Transportation assistance program. However, our audit does not provide a legal determination of the MTA's compliance.

Opinion on Each Major State of New York Department of Transportation Assistance Program

In our opinion, the MTA complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on its major State of New York Department of Transportation assistance program for the year ended December 31, 2018.

Report on Internal Control over Compliance

Management of the MTA is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the MTA's internal control over compliance with the types of requirements that could have a direct and material effect on each major State of New York Department of Transportation assistance program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major State of New York Department of Transportation assistance program and to test and report on internal control over compliance in accordance with NYSCRR, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the MTA's internal control over compliance.

A *deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a State of New York Department of Transportation assistance program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is reasonable possibility that material noncompliance with a type of compliance requirement of a State of New York Department of Transportation assistance program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a State of New York Department of Transportation assistance program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of NYSCRR. Accordingly, this report is not suitable for any other purpose.

Report on Schedule of State of New York Department of Transportation Assistance Expended as Required by the NYSCRR

We have audited the consolidated financial statements of the MTA as of and for the year ended December 31, 2018, and have issued our report thereon dated May 20, 2019, which contained an unmodified opinion on those consolidated financial statements. Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying Schedule of State of New York Department of Transportation Assistance Expended is presented for purposes of additional analysis as required by the NYSCRR and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Schedule of State of New York Department of Transportation Assistance Expended is fairly stated in all material respects in relation to the consolidated financial statements as a whole.

June 7, 2019

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METROPOLITAN TRANSPORTATION AUTHORITY
(A Component Unit of the State of New York)

STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION
SCHEDULE OF STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION ASSISTANCE EXPENDED
YEAR ENDED DECEMBER 31, 2018

State Grantor Program Title	CFDA Number	State Contract Number	Expenditures
Statewide Mass Transportation Operating Assistance Program	N/A	-	$187,924,000
Total State Transportation Assistance Expended			$187,924,000

See accompanying Notes to Schedule of State of New York Department of Transportation Assistance Expended.

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NOTES TO SCHEDULE OF STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION ASSISTANCE EXPENDED YEAR ENDED DECEMBER 31, 2018

1. BASIS OF PRESENTATION

a. Reporting Entity—General

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.

The accompanying Schedule of State of New York Department of Transportation Assistance Expended of the MTA presents the activity of all financial assistance programs provided by the New York State Department of Transportation to the MTA.

b. Program Tested

For the MTA's purpose, a State Transportation Assistance Program, as defined by Part 43 of the NYCRR, is any program that exceeds $3,000,000 when the total State Transportation Assistance Expended of the reporting entity exceeds $100 million. Total expenditures incurred by the MTA for the State Transportation Assistance Programs were approximately $188 million.

c. Indirect Costs

Indirect costs are included in the reported expenditures to the extent they are included in the financial reports used as the source for the data presented.

2. 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*.

Operating Assistance— The MTA Group receives, subject to annual appropriation, New York State ("NYS") operating assistance funds that are recognized as revenue after the NYS budget is approved. Generally, funds received under the NYS operating assistance program are fully matched by contributions from The City of New York and the seven other counties within the MTA's service area.

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, 2018 totaled $6.4 billion.

METROPOLITAN TRANSPORTATION AUTHORITY
(A Component Unit of the State of New York)

SCHEDULE OF FINDINGS AND QUESTIONED COSTS — STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION ASSISTANCE EXPENDED YEAR ENDED DECEMBER 31, 2018

1. SUMMARY OF AUDITORS' RESULTS: STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION ASSISTANCE EXPENDED

Internal control over State of New York Department of Transportation Assistance Expended:

Material weakness(es) identified	___ Yes	✓ No
Significant deficiency(ies) identified?	___ Yes	✓ None Reported
Type of auditor's report issued on compliance for State Transportation Assistance Programs:	Unmodified	
Any audit findings disclosed that are required to be reported in accordance with the *Part 43 of the New York State Codification of Rules and Regulations*?	___ Yes	✓ No

Identification of State of New York Department of Transportation Assistance Program tested:

State Grantor Program Title	CFDA Number	State Contract Number	Expenditures
Statewide Mass Transportation Operating Assistance Program	N/A	-	$187,924,000

Dollar threshold used to determine program to be tested:	$3,000,000	
Auditee qualified as low-risk auditee?	✓ Yes	No

2. FINDINGS AND QUESTIONED COSTS RELATING TO STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION ASSISTANCE EXPENDED

None.

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METROPOLITAN TRANSPORTATION AUTHORITY
(A Component Unit of the State of New York)

SUMMARY SCHEDULE OF PRIOR YEAR AUDIT FINDINGS—STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION ASSISTANCE EXPENDED YEAR ENDED DECEMBER 31, 2018

Not applicable, since no findings noted in prior year.

* * * * * *

DRAFT

The Metropolitan Transportation Authority

Report to Management

Year Ended December 31, 2018

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June 26, 2019
The Audit Committee
Metropolitan Transportation Authority
New York, New York

And

The Management of the Metropolitan Transportation Authority
New York, New York

Dear Members of the Audit Committee and Management:

In connection with our audits of the consolidated financial statements of the Metropolitan Transportation Authority (the "Authority") and of the financial statements of the First Mutual Transportation Assurance Company, Long Island Rail Road Company, Metro-North Commuter Railroad Company, MTA Bus Company, New York City Transit Authority, Staten Island Rapid Transit Operating Authority and the Triborough Bridge and Tunnel Authority (collectively the "MTA") as of and for the year ended December 31, 2018 (on which we have issued our reports dated June 26, 2019 which contain explanatory paragraphs that the MTA requires significant subsidies from other governmental entities), performed in accordance with auditing standards generally accepted in the United States of America (generally accepted auditing standards), we considered the MTA's internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the MTA's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the MTA's internal control over financial reporting.

Our consideration of internal control over financial reporting was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control over financial reporting. However, in connection with our audits, we have identified, and included in the attached Appendix A, deficiencies related to the MTA's internal control over financial reporting and other matters as of December 31, 2018, that we wish to bring to your attention.

We also plan to issue our Uniform Guidance Reports in accordance with *Government Auditing Standards* and the U.S. Office of Management and Budget ("OMB") audit requirements of Title 2 U.S. Code of Federal Regulations (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("OMB Uniform Guidance") and compliance with the types of compliance requirements described in the *Part 43 of the New York State Codification of Rules and Regulations* which will include (1) Independent Auditors' Report (2) Independent Auditors' Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in

Accordance with *Government Auditing Standards* (3) Independent Auditors' Report on Compliance for Each Major Federal Program; and Report on Internal Control Over Compliance; and Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance, and (4) Independent Auditors' Report on Compliance for Each Major State of New York Department of Transportation Assistance Program; and Report on Internal Controls over Compliance; and Report on Schedule of State of New York Department of

Transportation Assistance expended Required by Part 43 of the New York State Codification of Rules and Regulations.

The definitions of a deficiency is also set forth in the attached Appendix B

Although we have included management's written response to our comments in the attached Appendix A, such responses have not been subjected to the auditing procedures applied in our audits of the financial statements and, accordingly, we do not express an opinion or provide any form of assurance on the appropriateness of the responses or the effectiveness of any corrective actions described therein.

A description of the responsibility of management for establishing and maintaining internal control over financial reporting and of the objectives of and inherent limitations of internal control over financial reporting, is set forth in the attached Appendix C and should be read in conjunction with this report.

This report is intended solely for the information and use of management, the Audit Committee, Federal and State awarding agencies or pass-through entities, and others within the organization and is not intended to be, and should not be, used by anyone other than these specified parties.

Sincerely,

APPENDIX A

METROPOLITAN TRANSPORTATION AUTHORITY- HEADQUARTERS

DEFICIENCIES

We identified, and included below, deficiencies involving the Metropolitan Transportation Authority-Headquarters' ("MTA HQ") internal control over financial reporting for the year ended December 31, 2018, that have not been previously communicated in writing or orally, by others within MTA HQ, or by us.

1. Controls related to the Review of Classification of Debt, Security Deposits and Derivative Hedge Asset/Liability

Criteria:
GASB Codification - Section 1800.113, *Current Liabilities,* states the following:

The term *current liabilities* is used principally to designate obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets, or the creation of other current liabilities. Other liabilities whose regular and ordinary liquidation is expected to occur within one year also are intended for inclusion, such as short-term debts arising from the acquisition of capital assets, serial maturities of long-term obligations, amounts required to be expended within one year under sinking fund provisions, and certain agency obligations arising from the collection or acceptance of cash or other assets for the account of third parties.

GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments* establishes accounting and financial reporting requirements for derivative instruments entered by state and local governments. GASB Statement No. 53 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.

The MTAHQ holds SWAP instruments in its bond portfolio. In certain cases, SWAP instruments were attached to bonds, which subsequently were refunded or retired, at which point, the SWAP instrument was reattached to another outstanding bond issue. At the point of reattachment there is a value associated with the SWAP being reattached known as an "off market element" which needs to be amortized over the remaining life of the bonds. This off-market element is part of the overall FMV of the derivative instruments and must be broken out and reported separately. Depending on the FMV of the derivative instruments and the amortization of the off-market element, this value is reported as a derivative hedge asset or liability.

Condition:
Generally accepted accounting principles require the proper and consistent classification of liabilities between current and non-current. In accordance with GASB Section 1800.113, current portion of long-term debt should reflect all principal payments due within one year of December 31, 2018. Based on our testing procedures, the total balance of outstanding debt for three bond series was improperly classified as non-current debt, while there were principal payments due within one year of December 31, 2018 that should have been classified as current portion of long-term debt. MTAHQ holds security deposits for property they lease to third parties or tenants and have recognized all these deposits as non-current liability in the general ledger. However, based on our testing procedures we noted some leases are set to

expire within one year of December 31, 2018. As such, some of the security deposits should have been classified as a current liability.

Management recorded the fair value of derivative instruments and the off-market element quarterly using the valuation report obtained by third-party specialists and the amortization schedules for each off-market element that were prepared at the date of novation. Based on our testing procedures, we noted the amortization schedules of the off-market elements were not properly reviewed to identify the error within the calculation of the amortized off-market element balance as of December 31, 2018.

Cause:
Management did not perform a thorough review of the debt classification schedule and of the expiration of leases at December 31, 2018 to ensure proper classification of debt and the security deposit liability between current and non-current. During the 2018 year-end review of the off-market elements, a detailed comparison to underlying source documents (i.e. off-market element amortization schedules) was not performed by the reviewer.

Effect:
"Current portion – long-term debt" was understated by $23.8 million and "Noncurrent portion- long-term debt" was overstated by $23.8 million as of December 31, 2018. "Other current liabilities" were understated by $1 million and "Other non-current liabilities" were overstated by $1 million as of December 31, 2018. Prior to the correction by management, "Derivative assets" was overstated by $3.3 million and "Derivative liabilities" was understated by $3.3 million.

Recommendation:
Management should enhance their review process of the debt classification schedule, of the leases terms and expirations schedule, and the off-market elements amortization schedules, whereby the schedules are prepared and separately reviewed to ensure that the classification of debt, security deposits and derivative hedge asset/liability are recorded properly in the financial statements. During the review of the debt classification schedule and the security deposit schedule, the reviewer should compare the balances reported as current and noncurrent to underlying supporting source documents. During the review of the off-market elements amortization schedules, the reviewer should compare the balances reported as derivative asset/liability to the underlying source documents.

Financial Statement Impact:
A re-classification adjustment of $23.8 million from "Noncurrent portion -long-term debt" to "Current portion - long-term debt" and a correction of $3.3 million from "Derivative assets" to "Derivative liabilities" was made by Management as of December 31, 2018. There was a misstatement to "Other current liabilities" and "Other non-current liabilities" of $1 million related to security deposits as of December 31, 2018.

Management Response (2018):
MTAHQ agrees with the recommendation. We will enhance the review process between preparer and reviewer of the debt classification schedule, security deposits schedule and the derivative assets and derivative liabilities supporting schedules to ensure proper classification in the financial statements.

2. Controls related to the Review of Subway Action Plan

Criteria:
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 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.

Condition:
Generally accepted accounting principles require the proper and consistent classification of expenses with revenue in accordance with the matching principle. Funds in the SAP account were used exclusively for funding the operating and capital costs of the SAP (such plan developed by MTA New York City Transit and approved by the MTA Board). Based on our testing procedures, we identified that the non-operating SAP revenue was understated by $60 million and unearned revenue was overstated by $60 million as of December 31, 2018.

Cause:
Upon evaluation of the internal controls over the SAP, it was determined this misstatement was the result of a lack of timely information regarding the actual expenditures related to the operating and capital costs of the SAP which is used by the MTAHQ Accounting Department to record the related SAP revenue and unearned revenue as of December 31, 2018.

Effect:
"NYS/NYC SAP" non-operating revenue was understated by $60 million and "Unearned revenue" was overstated by $60 million as of December 31, 2018.

Recommendation:
It is recommended that MTAHQ Budget and MTA Treasury communicate timely and periodically on matters that involve both agencies such as SAP actual expenditures. Timely communication between these departments would contribute to accurate and complete accounting of the SAP expenditures and related revenue by the MTAHQ Accounting Department.

Financial Statement Impact:
Management recorded an adjustment to "NYS/NYC SAP" to increase the non-operating revenue by $60 million and decrease "Unearned revenue" by $60 million as of December 31, 2018.

Management Response (2018):
MTAHQ agrees with this recommendation. Going forward, MTAHQ Budget and MTA Treasury will include MTAHQ and Agency accounting departments in communications related to revenue and expenditures transactions.

MTA CONSOLIDATED INFORMATION TECHNOLOGY (“IT”) DEPARTMENT

DEFICIENCIES

We identified, and included below, deficiencies involving the MTA Consolidated IT Department's internal control over financial reporting for the year ended December 31, 2018, that have not been previously communicated in writing or orally, by others within the MTA, or by us.

1. ORT Application and Supporting SQL Database Password Parameters

Agency:
Triborough Bridge and Tunnel Authority ("TBTA")

Criteria:
The identity of users should be authenticated to the systems software through passwords or other authentication mechanisms, in compliance with entity security policies. The use of passwords incorporates policies on periodic change, confidentiality, and password format (e.g., password length, alphanumeric content, expiration, account lockout).

Condition:
ORT Application: During our audit procedures, D&T noted that current password parameters for the ORT application were not in compliance with the security policy as the current parameters do not enforce complexity nor lockout parameters. Weak password parameters could potentially result in users gaining unauthorized access to the application.

SQL Database: D&T noted that 5 service accounts are configured with SQL authentication and do not inherit Windows password parameters. As such, the passwords for these accounts are not set in accordance with MTA security policies/industry best practices.

Cause:
D&T noted that the root cause was attributed to lack of management oversight.

Effect:
Security mechanisms are inadequate, ineffective, or inconsistent due to lack of established security policies and standards. This increases the risk of unauthorized access to the ORT application and supporting SQL database which could potentially lead to inappropriate changes to the application or underlying data.

Recommendation:
We recommend that MTA IT coordinate with ORT vendor management to align the password parameters with TBTA security policies and industry best practices. Given that the vendor is responsible for the password parameters, D&T recommends that MTA IT consider implementing a multi-factor authentication (MFA) solution (i.e. Microsoft Azure Multi-Factor Authentication, RSA, Okta) as part of the TBTA environment as an additional control over security.

Financial Statement Impact:
No Impact – risk associated with this deficiency mitigated by the following controls and factors:

1. As users are approved by management based on job responsibilities prior to implementation in production, D&T noted an effective provisioning control assists to reduce the risk of users having inappropriate access to the application.

2. As users are removed in a timely manner following termination/transfer from departments, D&T noted an effective deprovisioning control also assists to reduce the risk of users having inappropriate access to the application.

Management Response (2018):

Estimated completion date is the 3rd Quarter 2019.

Management concurs. The vendor has agreed to align passwords with MTA IT Security password policy with MTA password policy.

2. CAMS-FS Application Password Parameters

Agency:
Long Island Rail Road ("LIRR")

Criteria:
The identity of users should be authenticated to the systems software through passwords or other authentication mechanisms, in compliance with entity security policies. The use of passwords incorporates policies on periodic change, confidentiality, and password format (e.g., password length, alphanumeric content, expiration, account lockout).

Condition:
During our audit procedures, D&T noted that current password parameters for the LIRR AD domain (and thus the CAMS-FS application) were not in compliance with the security policy as the current parameters do not enforce complexity nor meet the minimum length and lockout threshold requirements. Weak password parameters could potentially result in users gaining unauthorized access the applications.

Cause:
D&T noted that the root cause was attributed to lack of management oversight.

Effect:
Security mechanisms are inadequate, ineffective, or inconsistent due to lack of established security policies and standards. This increases the risk of unauthorized access to the CAMS-FS application which could potentially lead to inappropriate changes to the application or underlying data.

Recommendation:
We recommend that MTA IT align the password parameters for the CAMS-FS application with LIRR security policies and industry best practices.

Financial Statement Impact:
No Impact – risk associated with this deficiency mitigated by the following controls and factors:

1. As users are approved by management based on job responsibilities prior to implementation in production, D&T noted an effective provisioning control assists to reduce the risk of users having inappropriate access to the application.

2. As users are removed in a timely manner following termination/transfer from departments, D&T noted an effective deprovisioning control also assists to reduce the risk of users having inappropriate access to the application.

Management Response (2018):

Estimated completion date is the 3rd Quarter of 2019.

Management concurred. The Active Directory Project, already started in 2018, will update passwords to align with IT Security Policy.

3. AFC and MMS (TALON) Application and Supporting DB2 Database Password Parameters

Agency:
New York City Transit Authority

Criteria:
The identity of users should be authenticated to the systems software through passwords or other authentication mechanisms, in compliance with entity security policies. The use of passwords incorporates policies on periodic change, confidentiality, and password format (e.g., password length, alphanumeric content, expiration, account lockout).

Condition:
Password settings configured for the AFC and MMS applications as well as the supporting DB2 database are not in line with the MTA Corporate Policy and/or industry standards on the network and on RACF. Weak password parameters could potentially result in users gaining unauthorized access the applications.

Cause:
D&T noted that the root cause was attributed to lack of management oversight.

Effect:
Security mechanisms are inadequate, ineffective, or inconsistent due to lack of established security policies and standards. This increases the risk of unauthorized access to the mainframe applications and underlying DB2 databases which could potentially lead to inappropriate changes to the application or underlying data.

Recommendation:
We recommend that MTA IT align the password parameters for the mainframe applications and supporting DB2 databases with Transit Authority security policies and industry best practices.

Financial Statement Impact:
No Impact – risk associated with this deficiency mitigated by the following controls and factors:

1. As users are recertified by management, D&T noted an effective monitoring control assists to reduce the risk of users having inappropriate access to the application.

2. Access to implement changes (including interface and database changes) into the application production environment is appropriately restricted and segregated.

Management Response (2018):
Estimated completion date is the 4th Quarter of 2019.

Management concurred. MTA IT Security has been already working with the vendor on testing password settings and the effects on downstream applications. Management is also looking to create a separate directory group which will have the increased security requirements with the limited special character selection.

4. Impact Application Password Parameters

Agency:
Metropolitan Transportation Authority- Headquarters

Criteria:
The identity of users should be authenticated to the systems software through passwords or other authentication mechanisms, in compliance with entity security policies. The use of passwords incorporates policies on periodic change, confidentiality, and password format (e.g., password length, alphanumeric content, expiration, account lockout).

Condition:
D&T noted that passwords to the Impact application are not in compliance with MTA security policies or industry best practices as the current password settings lack complexity, password age, password history, and lockout requirements.

Cause:
The security policies and guidelines were not appropriately implemented for the Impact application.

Effect:
Security mechanisms are inadequate, ineffective, or inconsistent due to lack of established security policies and standards. This increases the risk of unauthorized access to the Impact application which could potentially lead to inappropriate changes to the application or underlying data.

Recommendation:
We recommend that MTA IT align the password parameters for the Impact application with MTAHQ security policies and industry best practices.

Financial Statement Impact:
No Impact – risk associated with this deficiency mitigated by the following controls and factors:

1. As users are approved by management based on job responsibilities prior to implementation in production, D&T noted an effective provisioning control assists to reduce the risk of users having inappropriate access to the application.

2. As users are removed in a timely manner following termination/transfer from departments, D&T noted an effective deprovisioning control also assists to reduce the risk of users having inappropriate access to the application.

Status Update (2016):
The identified observation still remains open.

Impact application password parameters continue to not be in compliance with MTA security policies or industry best practices as the current password settings lack password age, password history, and lockout requirements.

We reiterate our prior recommendations.

Status Update (2017):
The identified observation still remains open. Impact application password parameters continue to not be in compliance with MTA security policies or industry best practices as the current password settings lack password age, password history, and lockout requirements. We reiterate our prior recommendations.

Management Response (2017):
Estimated Completion date is the 3rd Quarter of 2018.

IMPACT uses WebLogic server's LDAP (Lightweight Directory Access Protocol) for authentication, where these password parameters such as password history are not built-in features. IMPACT does not have the resources to create custom password features. MTA IT is currently in the process of switching IMPACT's authentication from WebLogic's LDAP to MTA's agency-wide ADLDS (Active Directory Lightweight Directory Services).

Status Update (2018):
The identified observation still remains open.

While IMPACT's authentication from WebLogic's LDAP switched to the MTA's agency-wide ADLDS during the year, D&T noted that the current password parameters for the domain (governing authentication) were not in compliance with the security policy as the current parameters do not enforce complexity nor meet the minimum length requirements.

We reiterate our prior recommendations.

Management Response (2018):
Estimated completion date is the 3rd Quarter of 2019.

Management concurred. The Impact applications was already moved to ADLDS (Active Directory) Lightweight Directory Services in the 4th Quarter of 2018. To be compliant, the Impact applications relies on the Active Directory project to update passwords to align with IT Security and best practices, which work is already in progress.

5. Change Management - Access to Production – CAMS-FS Application

Agency:
Long Island Rail Road ("LIRR")

Criteria:
Access to implement changes (including interface and database changes) into the application production environment should be appropriately restricted to the IT Security Administrator and the VP-IT Department and is segregated.

Condition:
D&T noted that there are improper segregation of duties between development and deployment for the CAMS-FS application as developers have the ability to develop and deploy changes. As such, it is possible for a developer to migrate their own change into the CAMS-FS production environment without appropriate change management testing and approvals. In response to this finding, MTA IT has implemented a two-tier production change process that consists of the programmer analysts submitting a ServiceNow Change Request to be implemented by the Maximo Administration personnel. In addition, an automated monitoring process for any changes to the Maximo enterprise archive (EAR) java file was implemented. This process notifies the application support manager and the quality assurance manager of any changes to date/time stamp of the production EAR file. However, D&T was unable to corroborate the design and implementation of these processes in the current year.

Cause:
MTA IT has not appropriately segregated logical access for developers; they are granted access to both development and production environments without sufficient monitoring controls.

Effect:
Given that logical access has not been appropriately segregated, there is a risk of unauthorized changes being implemented into the production environment that would circumvent the change management process.

Recommendation:
We recommend that MTA IT maintain sufficient appropriate documentation to evidence the design and implementation effectiveness of the monitoring procedures used to mitigate the risk arising from this segregation of duties deficiency.

Financial Statement Impact:
No Impact – risk associated with this deficiency mitigated by the following control:

1. As changes are required to be tested and approved prior to implementation in production as a part of the control, D&T noted that an effective control would mitigate the risk of inappropriate changes to the application or supporting database.

Status Update (2016):
The identified observation still remains open.

D&T noted that MTA IT has not appropriately segregated logical access for developers; they are granted access to both development and production environments without sufficient monitoring controls.

We reiterate our prior recommendations as management should restrict programmer access to the production environment or implement additional monitoring controls that would address the risk arising from this segregation of duties deficiency.

Status Update (2017):
The identified observation remains open until D&T is able to test the design & implementation effectiveness of the monitoring controls created for this environment.

Management Response (2017):
Implemented in the 1st Quarter of 2018.

MTA IT implemented a two-tier production change process that consists of the programmer analysts submitting a ServiceNow Change Request to be implemented by the Maximo Administration personnel. In addition, an automated monitoring process for any changes to the Maximo enterprise archive (EAR) java file was implemented. This process notifies the application support manager and the quality assurance manager of any changes to date/time stamp of the production EAR file.

Status Update (2018):
The identified observation remains open until D&T is able to test the design & implementation effectiveness of the monitoring controls created for this environment.

Management Response (2018):
Estimated completion date is the 3rd Quarter of 2019.

Management concurred: Currently, all changes are being monitored, and any changes detected are sent to the MTA Information Technology Quality Assurance group for their review. Additionally, all changes are being entered into Service Now. Going forward, management will set up a monthly review with Information Technology Quality Assurance group to go over all changes that were detected through the monitoring process in place; and further, these reviews will be documented in Service Now.

FIRST MUTUAL TRANSPORTATIN ASSURANCE COMPANY

DEFICIENCIES

We identified, and included below, deficiencies involving the First Mutual Transportation Assurance Company's ("FMTAC") internal control over financial reporting for the year ended December 31, 2018, that have not been previously communicated in writing or orally, by others within FMTAC, or by us.

1. Controls related to the Journal Entry Review Process

Criteria:
Internal controls should be designed to provide reasonable assurance regarding the preparation of reliable financial statements in accordance with the applicable financial reporting framework.

Condition:
Certain controls surrounding the review and approval of journal entries need improvement and strengthening. Based on our testing and discussions with FMTAC management during the audit, we note that evidence of review of journal entries is not documented as part of the review of the financial statement package.

Cause:
Evidence of review of journal entries is not maintained.

Effect:
There is no financial statement effect. There is no formal evidence that FMTAC management is performing reviews of journal entries.

Financial Statement Impact:
There is no financial statement impact as this deficiency relates to a lack of evidence of a review process control performed by FMTAC management.

Recommendation:
It is suggested that to further strengthen controls, FMTAC management should formally document and maintain evidence of their review of all journal entries posted to the general ledger.

Management Response (2017):
FMTAC agrees with the recommendation. We will implement a process documenting the review of the financial statements on an overall basis.

Status Update (2018):
In 2018, we noted there was a process documenting the review of the financial statements on an overall basis. However, we did not note any documentation, specifying a review of journal entries has occurred. We believe that within the documentation of the review of the financial statements, it should also be explicitly stated that a review of journal entries has occurred.

Management Response (2018):
FMTAC agrees with the recommendation. We will implement a process for the review of financial statements that includes Journal Entry review for overall reasonableness.

NEW YORK CITY TRANSIT AUTHORITY

DEFICIENCIES

We identified, and included below, deficiencies involving the New York City Transit Authority ("NYCTA") internal control over financial reporting for the year ended December 31, 2018, that have not been previously communicated in writing or orally, by others within the MTA, or by us.

1. Capital Asset Disposals

Agency:
New York City Transit Authority (NYCTA)

Criteria:
Generally accepted accounting principles require the disposition of assets be recorded in the proper accounting period.

Conditions:
The sale or disposal of subway cars were recorded in an incorrect accounting period. Subway cars that had been disposed of through the MTA Asset Recovery Group in prior years continued to be recorded as assets in the NYCTA general ledger.

Cause:
Upon evaluation of the internal controls over the disposal of assets, it was determined that NYCTA's process over capital asset disposals is not designed or implemented effectively. Due to a breakdown in communication between the MTA Asset Recovery Group and NYCTA Accounting Department, subway disposals were not being adequately reviewed by management and recorded in the general ledger in a timely manner.

Effect:
The net book value associated with the subway cars that were disposed of in a prior year was $125 million of total net assets at December 31, 2018 of $43 billion.

Recommendation:
As an enhancement to the process over capital asset disposals, it is recommended that Accounting Department communicate regularly with the Asset Recovery Group to ensure all approved disposals are captured and recorded in the general ledger in the correct accounting period.

Financial Statement Impact:
Management made a correcting entry in 2018 to remove the disposed subway cars from the general ledger and recorded a loss on disposal of assets of $125 million for the year ended December 31, 2018 related to prior years.

Management Response (2018):
Effective January 2017, the NYCTA Accounting Department established a procedure whereby the Asset Recovery Group notifies it of all material disposals of capital assets. A reconciliation of the subway car inventory performed in 2018 identified subway cars which had been disposed of between the years 2002 and 2014 and not recorded, prior to the implementation of this new procedure. The adjusting entry recorded in 2018 of $125 million is to record the disposition of these subway cars. All subway cars disposed by NYCTA in 2017 and forward have been recorded by accounting on a timely basis. In 2018 management performed a review of the capital assets on the balance sheet and did not find any further disposals of assets which required an adjusting entry to be recorded.

2. GASB 49 Accrual

Agency:
New York City Transit Authority (NYCTA)

Criteria:
Pollution remediation costs are being expensed in accordance with the provisions of GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations.* Pollution remediation obligations occur when any 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.

Condition:
All environmental contracts were not being correctly captured and therefore not being properly expensed.

Cause:
All environmental contracts are added into the PSR system; in order to generate a list of the respective contracts, a manual process would have to be performed. Due to a change in the process, when a new contract was entered into the PSR System an additional identifier field was added indicating if it was an environmental contract. This would allow IT to filter by the respective indicator within the PSR system to generate the report instead of manually going through the contracts and identifying all related environmental agreements. However, the PSR report/query was not capturing this new identifier field and as such, any new environmental contracts that were being added were not being correctly identified.

Effect:
Due to additional identification of areas of exposure requiring corrective work requirements; NYCTA was not capturing a complete listing of all environmental contractions through the PSR System.

Recommendation:
It is recommended that NYCTA periodically review the list of environmental contracts to ensure accuracy and completeness.

Financial Statement Impact:
NYCTA recorded additional Pollution Remediation Expense for the year ended December 31, 2018; NYCTA recognized $84.1 million and $8.5 million respectively in 2018 and 2017.

Management Response (2018):
Management concurs. An exception report will be generated to capture any discrepancies between PSR system and the environmental report/query on a monthly basis. All discrepancies will be added to the environmental report/query to ensure a complete listing is provided to Accounting for recording in the general ledger.

3. Vacation and Sick Schedule

Agency:
New York City Transit Authority (NYCTA)

Criteria:
GASB Codification Section C60- Compensated Absences states the following:

Vacation leave and other compensated absences with similar characteristics should be accrued as a liability as the benefits are earned by the employees if *both* of these conditions are met:

a. The employees' rights to receive compensation are attributable to services already rendered.
b. It is probable that the employer will compensate the employees for the benefits through paid time off *or* some other means, such as cash payments at termination or retirement.

An employer usually would accrue a liability for vacation leave and other compensated absences with similar characteristics that were earned but not used during the current or prior periods and for which employees can receive compensation in a future period. Benefits that have been earned but that are not yet available for use as paid time off or as some other form of compensation because employees have not met certain conditions (for example, a minimum service period for new employees) should be accrued to the extent it is probable that the employees will meet the conditions for compensation in the future. However, benefits that have been earned but that are expected to lapse and thus not result in compensation to employees should not be accrued as a liability.

Condition:
All holiday and overtime banks ("fields") were not being correctly captured within the Sick and Vacation Report and therefore not being properly expensed and accrued for.

Cause:
The December 31, 2018, Kronos Vacation/Sick Report was not capturing all holiday and overtime banks ("fields"). In 2016 Holiday Bank was separated out from the preexisting bank of Frozen Vacation Liability; this was separated for tracking purposes. Holiday bank tracks employees' hours who work on MTA companywide holidays. The second bank added in 2018 was a new bank called Overtime ("OT") Premium; OT Premium tracks the additional amount given to employees for overtime hours. The Vacation/Sick Report that is run at December 31 was not updated to reflect the additional banks that were separated out and added; as such, the report was not capturing the complete liability amount. During 2018, this issue was noticed and was corrected. NYCTA Management, alongside with the IT Department, had to adjust the parameters of the report to include all holiday and overtime banks.

Effect:
Not all salary, sick, and vacation liabilities were recorded in the general ledger. Accrued balances were incorrectly calculated and recorded due to misapplication of the formula and/or data used.

Recommendation:
It is recommended that NYCTA update the IT Report and Parameters anytime any policy changes/union updates are enacted. Further, the Kronos Sick and Vacation Schedule should be reviewed by Timekeeping and Management annually.

Financial Statement Impact:
NYCTA recorded an adjustment for the year ended December 31, 2018 to increase Operating Expenses by $15.2 million. The increase was captured in the following two financial statement lines: Salaries and Wages expense of $14.1 million and Other Fringe Benefits expense of $1.1 million. NYCTA's Salaries and Wages and Other Fringe Benefits expenses for the year 2018 totaled $4.1 billion and $489 million, respectively.

Management Response:
Management concurs. NYCTA management will annually review the Kronos Sick and Vacation Schedule and ensure all updates are properly reflected.

4. Controls related to the Review of Subway Action Plan

Criteria:
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 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.

Condition:
Generally accepted accounting principles require the proper and consistent classification of expenses with revenue in accordance with the matching principle. Funds in the SAP account were used exclusively for funding the operating and capital costs of the SAP (such plan developed by MTA New York City Transit and approved by the MTA Board). Based on our testing procedures, we identified that the non-operating SAP revenue was understated by $60 million and unearned revenue was overstated by $60 million as of December 31, 2018.

Cause:
Upon evaluation of the internal controls over the SAP, it was determined this misstatement was the result of a lack of timely information regarding the actual expenditures related to the operating and capital costs of the SAP which is used by the NYCTA Accounting Department to record the related SAP revenue and unearned revenue as of December 31, 2018.

Effect:
"NYS/NYC SAP" non-operating revenue was understated by $60 million and "Unearned revenue" was overstated by $60 million as of December 31, 2018.

Recommendation:
It is recommended that MTAHQ Budget and MTA Treasury communicate timely and periodically on matters that involve both agencies such as SAP actual expenditures. Timely communication between these departments would contribute to accurate and complete accounting of the SAP expenditures and related revenue by the NYCTA Accounting Department.

Financial Statement Impact:
Management recorded an adjustment to "NYS/NYC SAP" to increase the non-operating revenue by $60 million and decrease "Unearned revenue" by $60 million as of December 31, 2018.

Management Response (2018):
Management concurs. Going forward, MTAHQ Budget and MTA Treasury will include HQ and agency accounting departments in communications related to expenditures and revenue transactions.

APPENDIX B

DEFINITION

The definition of a deficiency is as follows:

A *deficiency* in internal control over financial reporting exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A deficiency in design exists when (a) a control necessary to meet the control objective is missing, or (b) an existing control is not properly designed so that, even if the control operates as designed, the control objective would not be met. A deficiency in operation exists when a properly designed control does not operate as designed or when the person performing the control does not possess the necessary authority or competence to perform the control effectively.

APPENDIX C

MANAGEMENT'S RESPONSIBILITY FOR, AND THE OBJECTIVES AND INHERENT LIMITATIONS OF, INTERNAL CONTROL OVER FINANCIAL REPORTING

The following comments concerning management's responsibility for internal control over financial reporting and the objectives and inherent limitations of internal control over financial reporting are included in generally accepted auditing standards.

Management's Responsibility

The Company's management is responsible for the overall accuracy of the financial statements and their conformity with accounting principles generally accepted in the United States of America. In this regard, the Company's management is also responsible for designing, implementing and maintaining effective internal control over financial reporting.

Objectives of Internal Control over Financial Reporting

An entity's internal control over financial reporting is a process effected by those charged with governance, management, and other personnel, designed to provide reasonable assurance regarding the preparation of reliable financial statements in accordance with accounting principles generally accepted in the United States of America, An entity's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the entity; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States of America, and that receipts and expenditures of the entity are being made only in accordance with authorizations of management and those charged with governance; and (3) provide reasonable assurance regarding prevention, or timely detection and correction, of unauthorized acquisition, use, or disposition of the entity's assets that could have a material effect on the financial statements.

Inherent Limitations of Internal Control over Financial Reporting

Because of its inherent limitations, internal control over financial reporting may not prevent, or detect and correct, misstatements. Also, projections of any assessment of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

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