

# Metropolitan Transportation Authority

(A Component Unit of the State of New York)

Consolidated Financial Statements as of and  
for the Years Ended December 31, 2017 and 2016  
Required Supplementary Information,  
Supplementary Information and  
Independent Auditors' Report

**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, 2017 and 2016, 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. 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, 2017 and 2016, 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.

### ***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, and the Schedule of Funding Progress for the MTA Postemployment Benefit 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.

*Deloitte & Touche LLP*

April 25, 2018

**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, 2017 AND 2016  
(\$ In Millions, except as noted)**

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**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, 2017 and 2016. 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, employer contributions, actuarial assumptions used to calculate the net pension liability, historical trends, and other required supplementary information related to the MTA Group's cost-sharing multiple-employer and single-employer defined benefit pension plans as required by provisions for pensions under GASB Statement No. 68.

The Schedule of Funding Progress provides information concerning the MTA Group's progress in funding its obligation to provide pension benefits and postemployment benefits to its employees.

### ***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, 2017 and 2016. 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**

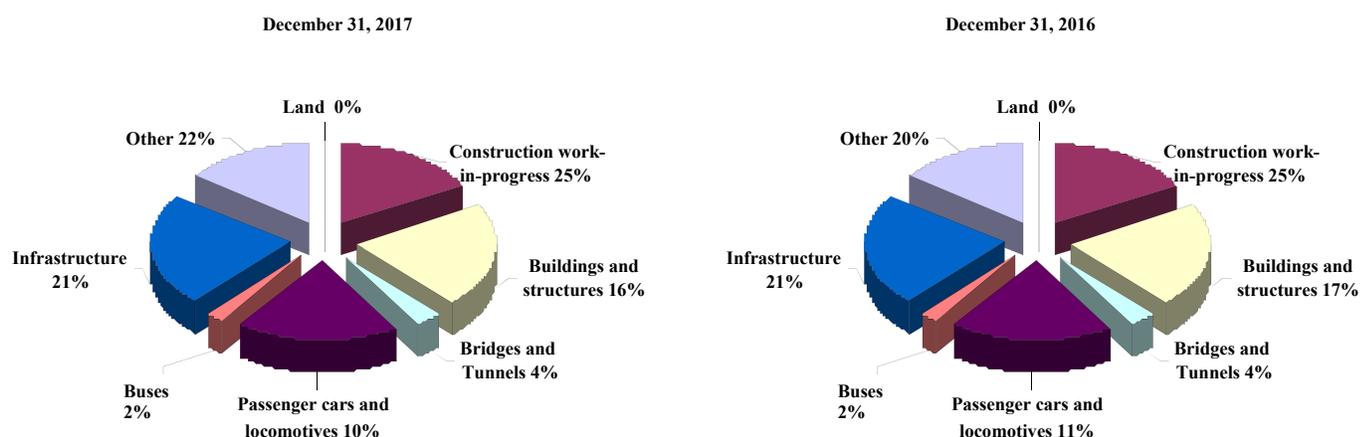
Capital assets include, but are not limited to: bridges, structures, tunnels, construction of buildings and the acquisition of buses, equipment, passenger cars, and locomotives.

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, and deferred outflows from pension activities.

(In millions)	December 31,			Increase / (Decrease)	
	2017	2016	2015	2017 - 2016	2016 - 2015
Capital assets — net (see Note 6)	\$ 68,060	\$ 64,518	\$ 61,410	\$ 3,542	\$ 3,108
Other assets	8,533	9,268	9,153	(735)	115
Total assets	76,593	73,786	70,563	2,807	3,223
Deferred outflows of resources	3,687	3,832	2,185	(145)	1,647
Total assets and deferred outflows of resources	\$ 80,280	\$ 77,618	\$ 72,748	\$ 2,662	\$ 4,870

### Capital Assets, Net



### Significant Changes in Assets and Deferred Outflows of Resources Include:

#### 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 1<sup>st</sup> 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 non-current 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.

#### **December 31, 2016 versus December 31, 2015**

- Net capital assets increased at December 31, 2016 by \$3,108 or 5.1%. This increase is attributable to net increases in other capital assets of \$761, infrastructure for \$655, construction work-in-progress of \$3,307, buildings and structures for \$354, bridges and tunnels for \$121, buses for \$217, passenger cars and locomotives for \$99. The increases were offset by a net increase in accumulated depreciation of \$2,406. 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 1<sup>st</sup> Avenue, Long Island City and construction of three Montauk bridges.
- Continued passenger station rehabilitations for Penn Station and East Side Access Passenger station.
- Ongoing work by MTA New York City Transit to make stations fully accessible and structurally reconfigured in accordance with the Americans with Disability Act (“ADA”) standards.
- Other assets increased by \$115 or 1.3%. This increase was mainly due from an increase in cash of \$278 from net cash flow activities. Current and non-current receivables decreased by \$43 primarily from a reserve for uncollectible insurance recoveries of \$100 offset by increases in receivables from Federal and State grants for capital projects of \$85 and other subsidies of \$60. Investments decreased by \$92 primarily from the termination of MTA Bridges and Tunnels sale-leaseback agreement of subway cars. There was net decrease in various other assets of \$28.
- Deferred outflows of resources increased by \$1,647 or 75.4%. This increase was primarily due from higher deferred outflows related to pensions of \$1,392 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. In addition, deferred outflows for unamortized losses on refundings increased by \$342, offset by a decrease in the fair value of derivative instruments of \$87.

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

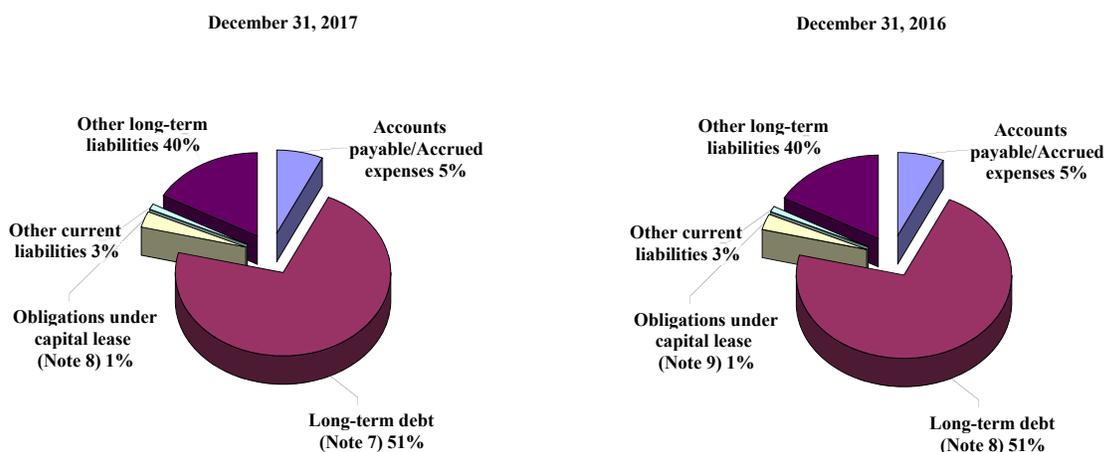
Current liabilities include: accounts payable, accrued expenses, current portions of long-term debt, capital lease obligations, pollution remediation liabilities, unredeemed fares and tolls, and other current liabilities.

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 and pension related deferred inflows.

(In millions)	December 31,			Increase/(Decrease)	
	2017	2016	2015	2017 - 2016	2016 - 2015
Current liabilities	\$ 6,246	\$ 6,003	\$ 6,465	\$ 243	\$ (462)
Non-current liabilities	68,304	65,684	59,980	2,620	5,704
Total liabilities	74,550	71,687	66,445	2,863	5,242
Deferred inflows of resources	506	324	492	182	(168)
Total liabilities and deferred inflows of resources	\$ 75,056	\$ 72,011	\$ 66,937	\$ 3,045	\$ 5,074

### Total Liabilities and Deferred Inflows of Resources



### Significant Changes in Liabilities and Deferred Inflows of Resources Include:

#### 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.

**December 31, 2016 versus December 31, 2015**

- Current liabilities decreased by \$462 or 7.2%. The net decrease in current liabilities was mainly due to a decrease in the current portion of long-term debt of \$610 primarily from the refunding of Certificates of Participation, refunding of other indebtedness and debt service payments made during 2016. This was offset by an increase in accrued expenses of \$74 mainly due to higher operating accruals and a net increase in other various current liabilities of \$74 primarily from accounts payable due to vendors.
- Non-current liabilities increased by \$5,704 or 9.5%. This increase was mainly due:
  - An increase in the non-current portion of long-term debt of \$2,404 primarily due to the 2016 issuances of Transportation Revenue Bonds, Transportation Revenue Bonds Bond Anticipation Notes, Dedicated Tax Fund Bonds, DTF Bond Anticipation Notes, MTA Hudson Rail Yards Trust Obligation and MTA Bridges and Tunnels General Revenue Bonds (See Note 8).
  - An increase in postemployment benefits other than pension liability (“OPEB”) of \$1,596 resulting from actuarial calculations as required by GASB Statement No. 45 (See Note 5).
  - An increase in pension liability of \$1,279, resulting from actuarial calculations as required by GASB Statement No. 68 (see Note 4).
  - An increase in estimated liability arising from injuries to persons (Note 11) of \$571 mainly due to a revised actuarial calculation of the workers’ compensation reserve for MTA New York City Transit.
  - A net decrease in other various non-current liabilities of \$146, primarily due to changes in the fair market value of derivative liabilities of \$79 and the termination of MTA Bridges and Tunnels sale-leaseback agreement of subway cars of \$107, offset by a net increase in other various non-current liabilities of \$40.
- Deferred inflows of resources decreased by \$168 or 34.2% primarily due to lower deferred inflows related to pensions due to 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.

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

(In millions)	December 31,			Increase/(Decrease)	
	2017	2016	2015	2017 - 2016	2016 - 2015
Net investment in capital assets	\$28,250	\$25,756	\$23,796	\$ 2,494	\$ 1,960
Restricted for debt service	516	352	487	164	(135)
Restricted for claims	182	178	142	4	36
Restricted for other purposes	983	935	1,051	48	(116)
Unrestricted	<u>(24,707)</u>	<u>(21,614)</u>	<u>(19,665)</u>	<u>(3,093)</u>	<u>(1,949)</u>
Total Net Position	<u>\$ 5,224</u>	<u>\$ 5,607</u>	<u>\$ 5,811</u>	<u>\$ (383)</u>	<u>\$ (204)</u>

***Significant Changes in Net Position Include:***

**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%.

**December 31, 2016 versus December 31, 2015**

At December 31, 2016, total net position decreased by \$204 or 3.6%, when compared with December 31, 2015. This change is a result of net non-operating revenues of \$5,258 and appropriations, grants and other receipts externally restricted for capital projects of \$2,168 offset by operating losses of \$7,630.

The net investment in capital assets increased by \$1,960 or 8.3% due to an increase of \$3,109 in net capital assets placed into service, which was offset by a net decrease of \$1,149 of related debt and other capital related offsets. Funds restricted for debt service, claims and other purposes decreased by \$216 or 12.9% in the aggregate, mainly due scheduled debt service payment. Unrestricted net position decreased by \$1,948 or 9.9%.

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

(In millions)	December 31, 2017	December 31, 2016	December 31, 2015	Increase / (Decrease)	
				2017 - 2016	2016 - 2015
Operating revenues					
Passenger and tolls	\$ 8,084	\$ 7,899	\$ 7,764	\$ 185	\$ 135
Other	<u>589</u>	<u>621</u>	<u>638</u>	<u>(32)</u>	<u>(17)</u>
Total operating revenues	<u>8,673</u>	<u>8,520</u>	<u>8,402</u>	<u>153</u>	<u>118</u>
Non-operating revenues					
Grants, appropriations and taxes	5,722	5,972	5,997	(250)	(25)
Other	<u>782</u>	<u>756</u>	<u>718</u>	<u>26</u>	<u>38</u>
Total non-operating revenues	<u>6,504</u>	<u>6,728</u>	<u>6,715</u>	<u>(224)</u>	<u>13</u>
Total revenues	<u>15,177</u>	<u>15,248</u>	<u>15,117</u>	<u>(71)</u>	<u>131</u>
Operating expenses					
Salaries and wages	5,968	5,627	5,471	341	156
Retirement and other employee benefits	2,742	2,892	2,380	(150)	512
Postemployment benefits other than pensions	2,155	2,146	1,997	9	149
Depreciation and amortization	2,611	2,447	2,496	164	(49)
Other expenses	<u>3,374</u>	<u>3,036</u>	<u>3,031</u>	<u>338</u>	<u>5</u>
Total operating expenses	<u>16,850</u>	<u>16,148</u>	<u>15,375</u>	<u>702</u>	<u>773</u>
Net expenses related to asset impairment	<u>-</u>	<u>2</u>	<u>5</u>	<u>(2)</u>	<u>(3)</u>
Total operating expenses	<u>16,850</u>	<u>16,150</u>	<u>15,380</u>	<u>700</u>	<u>770</u>
Non-operating expenses					
Interest on long-term debt	1,517	1,463	1,399	54	64
Other net non-operating expenses	<u>8</u>	<u>7</u>	<u>5</u>	<u>1</u>	<u>2</u>
Total non-operating expenses	<u>1,525</u>	<u>1,470</u>	<u>1,404</u>	<u>55</u>	<u>66</u>
Total expenses	<u>18,375</u>	<u>17,620</u>	<u>16,784</u>	<u>755</u>	<u>836</u>
Loss before appropriations, grants and other receipts externally restricted for capital projects	<u>(3,198)</u>	<u>(2,372)</u>	<u>(1,667)</u>	<u>(826)</u>	<u>(705)</u>
Appropriations, grants and other receipts externally restricted for capital projects	<u>2,662</u>	<u>2,168</u>	<u>1,980</u>	<u>494</u>	<u>188</u>
Change in net position	(536)	(204) *	313	(332)	(517)
Net position, beginning of year	5,607	5,811	13,282	(204)	(7,471)
Restatement of beginning net position adoption of GASB No. 68	-	-	(7,819)	-	7,819
Restatement of beginning net position correction to opening balance	-	-	35	-	(35)
Cumulative effect of change in accounting principle	<u>153</u>	<u>-</u>	<u>-</u>	<u>153</u>	<u>-</u>
Net position, end of year	<u>\$ 5,224</u>	<u>\$ 5,607</u>	<u>\$ 5,811</u>	<u>\$ (383)</u>	<u>\$ (204)</u>

\*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, 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 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.

#### **Years ended December 31, 2016 versus 2015**

- Total operating revenues increased by \$118 or 1.4%. This increase was mainly due to an increase in fare and toll revenue of \$135 primarily due to higher subway ridership and an increase in vehicle crossings for the year ended December 31, 2016, when compared to the year ended December 31, 2015. This increase was offset by a decrease in other operating revenues of \$17 due to lower advertising revenues collected on behalf of all agencies.
- Total non-operating revenues increased by \$13 or 0.2%.
  - Total grants, appropriations, and taxes decreased by \$25 for the year ended December 31, 2016. This was primarily due to a decrease in tax supported subsidies from New York City and local service areas of \$178 mainly from Urban Tax. This was offset by an increase in tax supported subsidies from New York State of \$156 mainly from Operating Assistance, and a decrease in other subsidies of \$3.
  - Other non-operating revenues increased by \$38. This increase was primarily from increases in subsidies from New York City of \$62 for MTA Bus and MTA Staten Island Railway and from the Connecticut Department of Transportation for the MTA Metro-North Railroad of \$18. This increase was offset by a decrease in various other non-operating revenue of \$42.
- Labor costs increased by \$817 or 8.3%. The major changes within this category are:
  - Retirement and employee benefits increased by \$512 primarily due to higher pension expenses of \$326 from GASB Statement No. 68 contributions and amortization of deferred outflows of

- resources. Increase in health and welfare and other fringe benefits of \$186 due to increased rates for health and welfare plans.
- Salaries, wages and overtime increased by \$156 due largely to increases in MTA New York City Transit.
  - Postemployment benefits other than pensions increased by \$149 based on changes in the actuarial estimates.
- Non-labor operating costs decreased by \$47 or 0.9%. The variance was primarily due to:
    - An increase in claims arising from injuries to persons of \$133 based on the most recent actuarial valuations.
    - An increase in maintenance and other contracts of \$43 mainly due to additional repairs and facility maintenance.
    - An increase in material and supplies by \$42, mainly due to ongoing maintenance and repairs for transit and commuter systems.
    - A decrease in depreciation of \$49 primarily due to the correction of the capitalization date of assets placed in service in prior years and the identification of certain capital projects that reached substantial completion in prior years and classified as depreciable assets.
    - A decrease in electric power of \$67 and fuel of \$37 due to lower prices in 2016.
    - A decrease in insurance of \$78 due to the recording of earned premium by FMTAC from OCIP Workers Compensation and General Liability Deductible Reimbursement policy in 2016.
    - A net decrease in other various expenses of \$34 mainly due to lower operating expenses.
  - Total net non-operating expenses increased by \$66 primarily due to interest on long-term debt.
  - Appropriations, grants and other receipts externally restricted for capital projects increased by \$188 or 9.5%, mainly due to timing in the availability of Federal and State grants for capital projects.

## **OVERALL FINANCIAL POSITION AND RESULTS OF OPERATIONS AND IMPORTANT ECONOMIC CONDITIONS**

### ***Economic Conditions***

Metropolitan New York is the most transit-intensive region in the United States, and a financially sound and reliable transportation system is critical to the region's economic well-being. The MTA consists of urban subway and bus systems, suburban rail systems, and bridge and tunnel facilities, all of which are affected by many different economic forces. 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 2017 decreased relative to 2016, with ridership down by 68.9 million trips (2.5%). The decrease is driven by Subway ridership, which declined by 29.5 million trips (1.7%),

MTA New York City Transit Bus ridership, which declined by 35.8 million trips (5.6%), and MTA Bus ridership, which declined by 3.5 million trips (2.8%). In addition, the MTA Long Island Rail Road experienced a decline of 163.4 thousand trips (0.2%). MTA Staten Island Railway ridership was 4.6 million in 2017, an increase of 1.6% from 2016, while MTA Metro-North Railroad ridership was effectively unchanged, with a small increase of 1.6 thousand trips (0.002%). The overall decline in ridership in 2017 was comprised of a 15.9 million decline in the first quarter, a 14.7 million decline in the second quarter, a 21.9 million decline in the third quarter and a 16.4 million decline in the fourth quarter, all compared with the same quarter in 2016. Much of the decline in ridership—around 57%—is driven by a general decline in bus utilization, a trend that began in 2009 and has been observed nationally. The decline in subway ridership is a more recent trend—beginning in the third quarter of 2016—which appears to be a reversion to a dynamic more consistent with the long-term historical relationship rather than that of the years immediately following the recession, when ridership surged. Vehicle traffic at MTA Bridges and Tunnels facilities increased by 2.6 million crossings (0.9%) in 2017 compared to 2016. Through the first half of 2017, crossings decreased by 1.2 million, but large increases in the third and fourth quarters (1.4 million and 2.4 million respectively) led to the overall increase for the year. Congestion pricing in Manhattan, which is currently being debated and may be considered for adoption at some point in the future, could impact ridership and vehicle crossings. However, there is no guarantee that congestion pricing will be approved.

Seasonally adjusted non-agricultural employment in New York City for the fourth quarter was higher in 2017 than in 2016 by 64.4 thousand jobs (1.5%). On a quarter-to-quarter basis, New York City employment has increased in each of the last twenty-nine 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 2017 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, residential fixed investment, state and local government spending, and federal government spending; these were partially offset by a negative contribution from private inventory investment. 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 3.2% growth rate, reflected a downturn in private inventory investment and an increase in imports; these were partially offset by an acceleration in personal consumption expenditures, nonresidential fixed investment, exports, state and local government spending, and federal government spending, as well as an upturn in residential fixed investment.

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 2017, with the metropolitan area index increasing by 1.7 %, while the national index increased by 2.1%, when compared with the fourth quarter of 2016. An 8.2% increase in the regional price of energy products, along with a 7.6% national increase, impacted overall inflation; in the metropolitan area, the CPI-U exclusive of energy products increased by 1.3%, while nationally, inflation exclusive of energy products was 1.7%. Increasing more than overall energy prices, the spot price for New York Harbor conventional gasoline rose by 14.8%, from an average price of \$1.54 per gallon to an average price of \$1.77 per gallon, between the fourth quarters of 2016 and 2017.

In March and June of 2017, the Federal Open Market Committee (“FOMC”) raised rates again, with the target range set at 0.75% to 1%, in March and then 1% to 1.25% in June. The Federal Funds rate was raised to its current target level of 1.25% to 1.5% in December 2017 in view of realized and expected labor market conditions and inflation. Despite raising the target rate in the fourth quarter of 2017, monetary policy continued to be accommodative, supporting strong labor market conditions and a sustained return to 2 percent inflation. The unemployment rate continued to decline, while household spending continued to expand at a moderate rate

and business fixed investment continued to pick up. Both overall inflation and inflation for items other than food and energy remained below 2 percent on a 12-month basis, and overall inflation is expected to remain below 2 percent in the short-term. Despite this, survey-based measures of longer-term inflation expectations were little changed. Consistent with its statutory mandate, the FOMC seeks to foster maximum employment and price stability. The FOMC expects that the economy will continue to expand at a moderate pace, labor market conditions will remain strong, and inflation will stabilize around 2 percent over the medium term. Gradual increases in the Federal Funds rate can be expected, but that the rate will remain below long-term levels for quite some time. Near-term risks to economic outlook appear roughly balanced, and the FOMC continues to closely monitor inflation indicators and global economic and financial developments.

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 2017 were lower than the fourth quarter of 2016 by \$7.2 (6.1%); receipts in the fourth quarter of 2017 were \$11.9 (9.7%) lower than receipts from the third quarter of 2017. Despite the gradual overall recovery of MRT receipts that began in 2012, average monthly receipts in 2017 remain \$25.2 (39.5%) worse 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 transaction 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 \$16.1 (9.9%) lower than receipts for the fourth quarter of 2016; receipts in the fourth quarter of 2017 were \$16.1 (12.4%) higher than receipts from the third quarter of 2017. Average monthly receipts in 2017 were \$24.8 (33.7%) 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, 2017, operating revenues increased by \$36.9 to \$1,931.9 as compared to December 31, 2016. Traffic in 2017 set a new record with 310 million crossings, surpassing the previous high of 307.4 million crossings from the previous year. MTA Bridges and Tunnels tolls accounted for 98.9% and 98.3% of operating revenues in 2017 and 2016, 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, 2017 was 90.4% compared to 85.9% as of December 31, 2016. The average weekday market shares for passenger and commercial vehicles were 91.5% and 87.5% for 2017 and 2016, respectively.

*MTA New York City Transit* - Total revenue from fares was \$4,487 in 2017, an increase of \$72, or 1.6%, compared to 2016. This increase was due mostly to the March 2017 fare increase. Total ridership was 2,339 million passengers in 2017, a decrease of 65 million, or 2.7%, from 2016.

*MTA Long Island Rail Road* – Total operating revenue for the year ended December 31, 2017 was \$780.6, which was higher by \$12.6 or 1.6% compared to the year ended December 31, 2016. For the same comparative period, operating expenses were higher by \$127.1 or 7.1%, totaling \$1.9 billion for the year ended December 31, 2017.

*MTA Metro-North Railroad* – For the year ended December 31, 2017, operating revenues totaled \$790.9, an increase of \$36.8 or 4.9% compared to 2016. During the same period, operating expenses increased by \$123.4 or 8.2% to \$1,623.9. Fare revenue for 2017 increased by 6.4% to \$733.4 compared to 2016. Passenger fares accounted for 92.6% and 91.94% of operating revenues in 2017 and 2016, 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, 2017 was \$452.8 compared to \$460.1 at December 31, 2016.

### **Capital Programs**

At December 31, 2017, \$12,460 had been committed and \$3,508 had been expended for the combined 2015-2019 MTA Capital Programs and the 2015-2019 MTA Bridges and Tunnels Capital Program, and \$26,309 had been committed and \$20,039 had been expended for the combined 2010-2014 MTA Capital Programs and the 2010-2014 MTA Bridges and Tunnels Capital Program, and \$24,053 had been committed and \$23,522 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.

As last approved by the MTA Board, the revised 2015-2019 Capital Programs provided \$32,806 in capital expenditures, of which \$16,664 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; \$5,270 relates to ongoing repairs of, and replacements to, the commuter system operated by MTA Long Island Rail Road and MTA Metro-North Railroad; \$7,235 relates to the expansion of existing rail networks for both the transit and commuter systems to be managed by MTA Capital Construction; \$321 relates to Planning and Customer Service; \$376 relates to MTA Bus Company initiatives; and \$2,940 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 \$7,907 in MTA Bonds, \$2,940 in MTA Bridges and Tunnels dedicated funds, \$8,466 in funding from the State of New York, \$7,556 in Federal Funds, \$2,492 from City Capital Funds, \$2,270 in pay-as-you-go (“PAYGO”) capital, \$600 from asset sale/leases, and \$575 from Other Sources.

At December 31, 2017, \$12,460 had been committed and \$3,508 had been expended for the combined 2015-2019 MTA Capital Programs and the 2015-2019 MTA Bridges and Tunnels Capital Program.

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.

As last amended by the MTA Board in 2014, the 2010–2014 MTA Capital Programs and the 2010–2014 MTA Bridges and Tunnels Capital Program provided for \$34,801 in capital expenditures. 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, 2017, the 2010-2014 MTA Capital Programs reflected an overall decrease of \$6 attributable to adjustments of the Security capital program budget. Of the \$32,015 in capital expenditures, \$11,369 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; \$3,877 relates to ongoing repairs of, and replacements to, the commuter system operated by MTA Long Island Rail Road and MTA Metro-North Railroad; \$6,329 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; \$2,018 relates to the ongoing repairs of, and replacements to, MTA Bridges and Tunnels facilities; and \$7,565 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 \$11,772 in MTA Bonds, \$2,018 in MTA Bridges and Tunnels dedicated funds, \$7,285 in Federal Funds, \$132 in MTA Bus Federal and City Match, \$729 from City Capital Funds, and \$1,743 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 \$6,343 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.

At December 31, 2017, \$26,309 had been committed and \$20,039 had been expended for the combined 2010-2014 MTA Capital Programs and the 2010-2014 MTA Bridges and Tunnels Capital Program.

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, 2017, the 2005-

2009 MTA Capital Programs budget increased by \$673 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 \$24,390 now provided in capital expenditures, \$11,526 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; \$7,701 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 \$9,698 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, \$9,093 in Federal Funds, \$2,827 in City Capital Funds, and \$1,322 from other sources.

At December 31, 2017, \$24,053 had been committed and \$23,522 had been expended for the combined 2005-2009 MTA Capital Programs and the 2005-2009 MTA Bridges and Tunnels Capital Program.

## **CURRENTLY KNOWN FACTS, DECISIONS, OR CONDITIONS**

### ***The 2017 November Financial Plan***

The 2017 MTA November Financial Plan (the “November Plan” or “Plan”), which includes the 2017 November Forecast, the 2018 Final Proposed Budget and a Financial Plan for the years 2018-2021, updates the July Financial Plan. Since 2010, MTA financial plans – which are developed in a disciplined, consistent, and transparent process – have included the impact of our continuous pursuit of operational efficiencies and recurring cost reductions, which are used to temper the amount of revenues needed from biennial fare and toll increases and governmental subsidies and provide funding for the capital program and enhanced maintenance. The Plans have added service when sustainable while also addressing long-term costs such as pensions, health care, paratransit, and debt service previously considered “uncontrollable.”

The July Plan was based on three key inter-related elements: (i) fare and toll price increases of 4% in 2019 and 2021; (ii) annually recurring cost reduction cost containment targets that will increase the level of annual savings to \$2.3 billion per year by 2021; and (iii) support for \$100 in additional funding needed for the amended Capital Program. The July Plan also funded important new investments over the plan period including \$484 for improved maintenance/operations and customer experience enhancements.

The Plan included certain MTA actions to address unfavorable changes from the February Plan, most notably a significant reduction in real estate transaction revenue, which remain in the November Plan assumptions:

- Increased savings targets by \$150 per year, starting in 2018 with an incremental increase of \$50 per year thereafter, growing to \$300 in 2021;
- Restoration of PMT (Payroll Mobility Tax) Replacement Funds to \$307 a year (\$65 per year);
- Suspended contributions to the MTA Bridges and Tunnels Necessary Reconstruction Reserve Fund from 2018-2021(\$158) instead of PAYGO;

- Use of \$135 of the \$155 in the 2017 General Reserve; and
- Suspended planned contributions to the GASB 45 OPEB reserves, set aside to fund Other Post-Employment Benefits (principally, retiree healthcare costs), beginning in 2018 (\$59).

The July Plan was balanced through 2019 with funding gaps of \$112 in 2020 and \$493 in 2021. Since the July Plan, changes and estimates worsening financial results over the Plan period include:

- Lower farebox/toll revenue estimates (\$281);
- Lower real estate transaction forecasts (\$147);
- Lower advertising revenue (\$143);
- Lower Metropolitan Mass Transportation Operating Assistance Fund (“MMTOA”) receipts (\$80);

Changes and re-estimates improving financial results over the Plan period include lower debt service costs (\$189). In total, changes and re-estimates, including the above, are \$309 unfavorable for the plan period.

Additional details of the November Plan and the July Plan are available on the MTA website, [www.mta.info](http://www.mta.info), under the caption “MTA Info – Budget and Financial Information – Budgets and Financial Statements”.

### ***Tropical Storm Sandy Update***

The total allocation of emergency relief funding from the 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 \$4.23 billion have been executed, including six grants in the amounts of \$194, \$886, \$684.5, \$344, \$787.6, and \$1,090.3 respectively for repair/local priority resiliency; and six grants for competitive resiliency totaling \$240.9. As of December 31, 2017, MTA has drawn down a total of \$1.70 billion in grant reimbursement for eligible operating and capital expenses. The balance of funds to be drawn down from all twelve 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. MTA is submitting grant requests for the remaining \$1.60 billion of allocated FTA emergency relief funding in Federal Fiscal Years 2018 and 2019.

### ***Labor Update***

Subsequent to the presentation of the February Plan to the MTA Board, certain of the unions representing employees at various MTA agencies reached agreement.

*MTA Metro-North Railroad Labor Agreements* – No changes since February Plan.

*MTA Headquarters* – To date, all expired bargaining agreements at MTA Headquarters have been settled. A 60-month agreement expiring December 31, 2019 was reached with the Transportation Communications Union (“TCU”) Local 982 representing information technology workers from various agencies that were recently consolidated as an MTA Headquarters department. The agreement is consistent with other HQ bargaining unit agreements. The Transport Workers Union, Local 100 has also recently won the right to represent former non-represented MaBSTOA employees who were part of the IT Consolidation. Negotiations on an agreement for

that bargaining unit have not yet begun. Pursuant to the Taylor Law, until a collective bargaining agreement is reached, terms and conditions of employment remain status quo. Finally, MTA HQ is in discussions with the TCU over titles affected by a newly forming consolidated Procurement Department that will handle non-core procurements for all MTA agencies.

*MTA New York City Transit Authority/Manhattan and Bronx Surface Transit Operating Authority* – The Transport Workers Union, Local 100 has recently won the right to represent non-represented MaBSTOA employees in certain computer titles. Negotiations on an agreement for that bargaining unit have not yet begun. Pursuant to the Taylor Law, until a collective bargaining agreement is reached, terms and conditions of employment remain status quo. MTA New York City Transit and the Doctors’ Council signed an agreement on June 8, 2016. It runs from November 1, 2010 through May 31, 2018. The agreement is consistent with the bargaining pattern. The Doctor’s Council represents 17 physicians and Deputy Medical Directors. The contract is pending MTA Board approval.

*MTA Bus Company* – A 60 month agreement was reached with TWU, Local 100 for the period from January 16, 2012 through January 15, 2017 consistent with pattern. The parties have agreed to refer the outstanding issue of pension enhancement to arbitration.

*MTA Bridges and Tunnels* – MTA Bridges and Tunnels continues to negotiate with its maintenance workers (DC 37 1931), Bridge & Tunnel Officers (BTOBA) and Superior Officers (SOBA).

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

**CONSOLIDATED STATEMENTS OF NET POSITION**  
**AS OF DECEMBER 31, 2017 AND 2016**  
**(\$ In millions)**

	<u>December 31,</u> <u>2017</u>	<u>December 31,</u> <u>2016</u>
<b>ASSETS AND DEFERRED OUTFLOWS OF RESOURCES</b>		
CURRENT ASSETS:		
Cash (Note 3)	\$ 283	\$ 732
Unrestricted investments (Note 3)	3,689	3,995
Restricted investments (Note 3)	1,783	1,425
Restricted investments held under capital lease obligations (Notes 3 and 8)	4	93
Receivables:		
Station maintenance, operation, and use assessments	119	120
State and regional mass transit taxes	140	150
Mortgage Recording Tax receivable	36	45
State and local operating assistance	10	11
Other receivable from New York City and New York State	187	309
Due from Build America Bonds	1	1
Capital project receivable from federal and state government	121	222
Other	425	605
Less allowance for doubtful accounts	<u>(62)</u>	<u>(130)</u>
Total receivables — net	<u>977</u>	<u>1,333</u>
Materials and supplies	608	566
Prepaid expenses and other current assets (Note 2)	<u>170</u>	<u>151</u>
Total current assets	<u>7,514</u>	<u>8,295</u>
NON-CURRENT ASSETS:		
Capital assets (Note 6):		
Land and construction work-in-progress	17,195	16,459
Other capital assets (net of accumulated depreciation)	50,865	48,059
Unrestricted investments (Note 3)	55	28
Restricted investments (Note 3)	485	418
Restricted investments held under capital lease obligations (Notes 3 and 8)	372	273
Other non-current receivables	46	124
Receivable from New York State	43	114
Other non-current assets	<u>18</u>	<u>16</u>
Total non-current assets	<u>69,079</u>	<u>65,491</u>
TOTAL ASSETS	<u>76,593</u>	<u>73,786</u>
DEFERRED OUTFLOWS OF RESOURCES:		
Accumulated decreases in fair value of derivative instruments (Note 7)	408	439
Loss on debt refunding (Note 7)	1,235	968
Deferred outflows related to pensions (Note 4)	<u>2,044</u>	<u>2,425</u>
TOTAL DEFERRED OUTFLOWS OF RESOURCES	<u>3,687</u>	<u>3,832</u>
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	<u>\$ 80,280</u>	<u>\$ 77,618</u>

See notes to the consolidated financial statements.

(Continued)

# METROPOLITAN TRANSPORTATION AUTHORITY

(A Component Unit of the State of New York)

## CONSOLIDATED STATEMENTS OF NET POSITION AS OF DECEMBER 31, 2017 AND 2016

(\$ In millions)

	December 31, 2017	December 31, 2016
<b>LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION</b>		
<b>CURRENT LIABILITIES:</b>		
Accounts payable	\$ 607	\$ 526
Accrued expenses:		
Interest	204	226
Salaries, wages and payroll taxes	307	251
Vacation and sick pay benefits	988	911
Current portion — retirement and death benefits	14	15
Current portion — estimated liability from injuries to persons (Note 10)	415	415
Capital accruals	412	436
Other	861	648
Total accrued expenses	<u>3,201</u>	<u>2,902</u>
Current portion — loan payable (Note 7)	14	-
Current portion — long-term debt (Note 7)	1,806	1,977
Current portion — obligations under capital lease (Note 8)	4	4
Current portion — pollution remediation projects (Note 12)	20	23
Unearned revenues	594	571
Total current liabilities	<u>6,246</u>	<u>6,003</u>
<b>NON-CURRENT LIABILITIES:</b>		
Net pension liability (Note 4)	8,105	8,983
Estimated liability arising from injuries to persons (Note 10)	3,436	3,026
Post employment benefits other than pensions (Note 5)	16,731	15,156
Loan payable (Note 7)	100	-
Long-term debt (Note 7)	38,292	36,945
Obligations under capital leases (Note 8)	436	429
Pollution remediation projects (Note 12)	59	65
Contract retainage payable	376	309
Derivative liabilities (Note 7)	422	454
Other long-term liabilities	347	317
Total non-current liabilities	<u>68,304</u>	<u>65,684</u>
<b>TOTAL LIABILITIES</b>	<u>74,550</u>	<u>71,687</u>
<b>DEFERRED INFLOWS OF RESOURCES:</b>		
Gain on debt refunding	26	29
Deferred Inflows related to pensions (Note 4)	480	295
<b>TOTAL DEFERRED INFLOWS OF RESOURCES</b>	<u>506</u>	<u>324</u>
<b>NET POSITION:</b>		
Net investment in capital assets	28,250	25,756
Restricted for debt service	516	352
Restricted for claims	182	178
Restricted for other purposes (Note 2)	983	935
Unrestricted	(24,707)	(21,614)
<b>TOTAL NET POSITION</b>	<u>5,224</u>	<u>5,607</u>
<b>TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION</b>	<u>\$ 80,280</u>	<u>\$ 77,618</u>

See notes to the consolidated financial statements.

(Concluded)

# METROPOLITAN TRANSPORTATION AUTHORITY

(A Component Unit of the State of New York)

## CONSOLIDATED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2017 AND 2016

(\$ In millions)

	<u>December 31, 2017</u>	<u>December 31, 2016</u>
OPERATING REVENUES:		
Fare revenue	\$ 6,172	\$ 6,036
Vehicle toll revenue	1,912	1,863
Rents, freight, and other revenue	<u>589</u>	<u>621</u>
Total operating revenues	<u>8,673</u>	<u>8,520</u>
OPERATING EXPENSES:		
Salaries and wages	5,968	5,627
Retirement and other employee benefits	2,742	2,892
Postemployment benefits other than pensions (Note 5)	2,155	2,146
Electric power	430	407
Fuel	151	125
Insurance	(3)	(21)
Claims	525	465
Paratransit service contracts	393	384
Maintenance and other operating contracts	645	576
Professional service contracts	425	328
Pollution remediation projects (Note 12)	13	12
Materials and supplies	588	585
Depreciation (Note 2)	2,611	2,447
Other	<u>207</u>	<u>175</u>
Total operating expenses	<u>16,850</u>	<u>16,148</u>
Net expenses related to asset impairment	<u>-</u>	<u>2</u>
OPERATING LOSS	<u>(8,177)</u>	<u>(7,630)</u>
NON-OPERATING REVENUES (EXPENSES):		
Grants, appropriations and taxes:		
Tax-supported subsidies — NYS:		
Mass Transportation Trust Fund subsidies	606	634
Metropolitan Mass Transportation Operating Assistance subsidies	1,668	1,668
Payroll Mobility Tax subsidies	1,695	1,670
MTA Aid Trust Account subsidies	292	294
Tax-supported subsidies — NYC and Local:		
Mortgage Recording Tax subsidies	453	460
Urban Tax subsidies	539	771
Other subsidies:		
New York State Service Contract subsidy	5	9
Operating Assistance - 18-B program	376	376
Build America Bond subsidy	<u>88</u>	<u>90</u>
Subtotal grants, appropriations and taxes	<u>\$ 5,722</u>	<u>\$ 5,972</u>

See notes to the consolidated financial statements.

(Continued)

# METROPOLITAN TRANSPORTATION AUTHORITY

(A Component Unit of the State of New York)

## CONSOLIDATED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2017 AND 2016

(\$ In millions)

	<u>December 31, 2017</u>	<u>December 31, 2016</u>
NON-OPERATING REVENUES (EXPENSES):		
Connecticut Department of Transportation	\$ 103	\$ 125
Subsidies paid to Dutchess, Orange, and Rockland Counties	(9)	(9)
Interest on long-term debt (Note 2)	(1,517)	(1,463)
Station maintenance, operation and use assessments	165	162
Operating subsidies recoverable from NYC	503	498
Other net non-operating expenses	<u>12</u>	<u>(27)</u>
Net non-operating revenues	<u>4,979</u>	<u>5,258</u>
LOSS BEFORE APPROPRIATIONS, GRANTS AND OTHER RECEIPTS EXTERNALLY RESTRICTED FOR CAPITAL PROJECTS	(3,198)	(2,372)
APPROPRIATIONS, GRANTS AND OTHER RECEIPTS EXTERNALLY RESTRICTED FOR CAPITAL PROJECTS	<u>2,662</u>	<u>2,168</u>
CHANGE IN NET POSITION	(536)	(204) *
NET POSITION — Beginning of year	5,607	5,811
Cumulative effect of change in accounting principle (Note 2)	<u>153</u>	<u>-</u>
NET POSITION — End of year	<u>\$ 5,224</u>	<u>\$ 5,607</u>

See notes to the consolidated financial statements.

\*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).

(Concluded)

# METROPOLITAN TRANSPORTATION AUTHORITY

(A Component Unit of the State of New York)

## CONSOLIDATED STATEMENTS OF CASH FLOWS

YEARS ENDED DECEMBER 31, 2017 AND 2016

(\$ In millions)

	<u>December 31,</u> <u>2017</u>	<u>December 31,</u> <u>2016</u>
CASH FLOWS FROM OPERATING ACTIVITIES:		
Passenger receipts/tolls	\$ 8,072	\$ 8,177
Rents and other receipts	730	442
Payroll and related fringe benefits	(9,384)	(8,993)
Other operating expenses	<u>(3,252)</u>	<u>(3,057)</u>
Net cash used by operating activities	<u>(3,834)</u>	<u>(3,431)</u>
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Grants, appropriations, and taxes	6,486	6,484
Operating subsidies from CDOT	124	120
Subsidies paid to Dutchess, Orange, and Rockland Counties	<u>(9)</u>	<u>(8)</u>
Net cash provided by noncapital financing activities	<u>6,601</u>	<u>6,596</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
MTA bond proceeds	6,093	6,635
MTA Bridges and Tunnels bond proceeds	2,723	642
MTA bonds refunded/reissued	(4,890)	(3,624)
MTA Bridges and Tunnels bonds refunded/reissued	(1,974)	(288)
MTA anticipation notes proceeds	2,252	1,419
MTA anticipation notes redeemed	(1,624)	(2,154)
MTA credit facility proceeds	204	-
MTA credit facility refunded	(200)	-
Grants and appropriations	3,158	2,431
Payment for capital assets	(6,000)	(5,543)
Debt service payments	<u>(2,840)</u>	<u>(2,546)</u>
Net cash used by capital and related financing activities	<u>(3,098)</u>	<u>(3,028)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of long-term securities	(8,190)	(10,376)
Sales or maturities of long-term securities	8,761	8,759
Net sales (purchases) or maturities of short-term securities	(753)	1,722
Earnings on investments	<u>64</u>	<u>36</u>
Net cash (used by) provided by investing activities	<u>(118)</u>	<u>141</u>
NET (DECREASE) INCREASE IN CASH	(449)	278
CASH — Beginning of year	<u>732</u>	<u>454</u>
CASH — End of year	<u>\$ 283</u>	<u>\$ 732</u>

See notes to the consolidated financial statements.

(Continued)

# METROPOLITAN TRANSPORTATION AUTHORITY

(A Component Unit of the State of New York)

## CONSOLIDATED STATEMENTS OF CASH FLOWS

YEARS ENDED DECEMBER 31, 2017 AND 2016

(\$ In millions)

	<u>December 31,</u> <u>2017</u>	<u>December 31,</u> <u>2016</u>
RECONCILIATION OF OPERATING LOSS TO NET CASH USED BY OPERATING ACTIVITIES:		
Operating loss (Note 2)	\$ (8,177)	\$ (7,630)
Adjustments to reconcile to net cash used in operating activities:		
Depreciation and amortization	2,611	2,447
Net increase in payables, accrued expenses, and other liabilities	1,806	1,853
Net increase in deferred outflows related to pensions	(381)	(1,392)
Net increase (decrease) in deferred inflows related to pensions	185	(165)
Net increase in net pension liability and related accounts	202	1,557
Net decrease in receivables	7	21
Net decrease in materials and supplies and prepaid expenses	<u>(87)</u>	<u>(122)</u>
NET CASH USED BY OPERATING ACTIVITIES	<u>\$ (3,834)</u>	<u>\$ (3,431)</u>
NONCASH INVESTING, CAPITAL AND RELATED FINANCING ACTIVITIES:		
Noncash investing activities:		
Interest expense includes amortization of net (premium)/discount (Note 2)	\$ 223	\$ 918 *
Interest expense which was capitalized	<u>59</u>	<u>58</u>
Total Noncash investing activities	<u>282</u>	<u>976</u>
Noncash capital and related financing activities:		
Capital assets related liabilities	412	419
Capital leases related liabilities	<u>436</u>	<u>417</u>
Total Noncash capital and related financing activities	<u>848</u>	<u>836</u>
TOTAL NONCASH INVESTING, CAPITAL AND RELATED FINANCING ACTIVITIES	<u>\$ 1,130</u>	<u>\$ 1,812</u>

See notes to the consolidated financial statements.

(Concluded)

\*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 amortization of (premium)/discount on bonds would have been \$954.

# **METROPOLITAN TRANSPORTATION AUTHORITY**

## **(A Component Unit of the State of New York)**

### **NOTES TO CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEARS DECEMBER 31, 2017 AND 2016 (\$ In millions, except as noted)**

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#### **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, 16<sup>th</sup> 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, 2017 and 2016 totaled \$5.7 billion and \$6.0 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 Adopted** —The MTA adopted the following GASB Statements for the year ended December 31, 2017:

*GASB Statement No. 73, Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement No. 67, and Amendments to Certain Provisions of GASB Statements 67 and 68, establishes requirements for defined benefit pension plans and defined contribution plans that are not within the scope of GASB Statement No. 68, Accounting and Financial Reporting for*

*Pensions.* GASB Statement No. 73 extends the approach to accounting and financial reporting established in GASB Statement No. 68 to all pensions to reflect that for accounting and financial reporting purposes, any assets accumulated for pensions that are provided through pension plans that are not administered through trusts that meet the criteria specified in GASB Statement No. 68, should not be considered pension plan assets. It also requires that information similar to that required by GASB Statement No. 68 be included in notes to financial statements and required supplementary information by all similarly situated employers and nonemployer contributing entities. The requirements of this Statement are effective for fiscal years beginning after June 15, 2016. The adoption of this Statement had no impact on the MTA's financial statements.

GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, establishes accounting and financial reporting standards for state and local governmental other postemployment benefit ("OPEB") plans. The Statement replaces GASB Statement No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, as amended, and GASB Statement No. 57, *OPEB Measurement by Agent Employers and Agent Multiple-Employer Plans*. The requirements of this Statement are effective for fiscal years beginning after June 15, 2016. The adoption of this Statement had no impact on the MTA's financial statements.

GASB Statement No. 80, *Blending Requirements for Certain Component Units* establishes an additional blending requirement for the financial statement presentation of component units. This Statement applies to component units that are organized as not-for-profit corporations in which the primary government is the sole corporate member, as identified in the component unit's articles of incorporation or bylaws. The requirements of this Statement are effective for reporting periods beginning after June 15, 2016. The adoption of this Statement had no impact on the MTA's financial statements. No additional disclosures are required.

GASB Statement No. 81, *Irrevocable Split-Interest Agreements* establishes accounting and financial reporting standards for split-interest agreements, which are a type of giving agreement used by donors to provide resources to two or more beneficiaries, including governments. The Statement provides recognition and measurement guidance for situations in which a government is a beneficiary of the agreement by requiring the government to recognize assets, liabilities, and deferred inflows of resources at the inception of the agreement. The requirements of this Statement are effective for financial statements for periods beginning after December 15, 2016. The adoption of this Statement had no impact on the MTA's financial statements, as the MTA does not enter into such agreements.

GASB Statement No. 82, *Pension Issues: An Amendment of GASB Statements No. 67, No. 68 and No. 73* addresses certain issues that have been raised with respect to GASB Statements No. 67, *Financial Reporting for Pension Plans*, Statement No. 68, *Accounting and Financial Reporting for Pensions*, and Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement No. 68*, and Amendments to Certain Provisions of GASB Statements Nos. 67 and 68. Specifically, this Statement addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements. The requirements of this Statement are effective for reporting periods beginning after June 15, 2016. The adoption of this Statement adjusted the presentation of payroll-related measures in the required supplementary information, but did not have an 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.

<b>GASB Statement No.</b>	<b>GASB Accounting Standard</b>	<b>MTA Required Year of Adoption</b>
75	<i>Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions</i>	2018
83	<i>Certain Asset Retirement Obligations</i>	2019
84	<i>Fiduciary Activities</i>	2019
85	<i>Omnibus 2017</i>	2018
86	<i>Certain Debt Extinguishment Issues</i>	2018
87	<i>Leases</i>	2020
88	<i>Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements</i>	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, 2017 and 2016.

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

**Materials and Supplies** — Materials and supplies are valued principally at the lower of average cost or market value, net of obsolescence reserve at December 31, 2017 and 2016 of \$166 and \$169, 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, 2017, the MTA paid to Dutchess, Orange and Rockland Counties the 2016 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.

*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 2016 and 2017. As of December 31, 2017, MTA New York City Transit collected \$70.3 from the State and New York City, with \$30 relating to a prepayment from New York City for the year 2018.

Prior to April 1995, New York City was obligated to reimburse MTA New York City Transit for the transit police force. As a result of the April 1995 merger of the transit police force into the New York City Police Department, New York City no longer reimburses MTA New York City Transit for the costs of policing the Transit System on an ongoing basis since policing of the Transit System is being carried out by the New York City Police Department at New York City's expense. MTA New York City Transit continues to be responsible for certain capital costs and support services related to such police activities, a portion of which is reimbursed by New York City. MTA New York City Transit received approximately \$7.6 and \$4.1 for the years ended December 31, 2017 and 2016 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, 2017 and 2016 were \$21.8 and \$20.7, respectively. The amounts recovered for the years ended December 31, 2017 and 2016 were approximately \$14.2 and \$13.5, 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 \$181.9 in the twelve months ended December 31, 2017, and \$196.5 in the twelve months ended December 31, 2016. Total paratransit expenses, including paratransit service contracts, were \$477.0 and \$467.0 in 2017 and 2016, 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 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, 2017, the balance of the assets in this program was \$139.6.

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, 2017, 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 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, 2017, 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, 2017, 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, 2017, FMTAC renewed the all-agency property insurance program. For the annual period commencing May 1, 2017, 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.

Supplementing the \$800 per occurrence noted above, FMTAC’s property insurance program has been expanded to include a further layer of \$200 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 22, 2017 to May 8, 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 83% of “certified” losses in 2017 and 82% of “certified” losses in 2018 and 81% of “certified” losses in 2019, as covered by the Terrorism Risk Insurance Program Reauthorization Act (“TRIPRA”) of 2015. The remaining 17% (2017), 18% (2018) and 19% (2019) 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 \$140 in 2017, \$160 in 2018 and \$180 in 2019. The United States government’s reinsurance is in place through December 31, 2020.

To supplement the reinsurance to FMTAC through the TRIPRA, MTA obtained an additional commercial reinsurance policy with various reinsurance carriers in the domestic, London and European marketplaces. That policy provides coverage for (1) 17% of any “certified” act of terrorism up to a maximum recovery of \$182.8 for any one occurrence and in the annual aggregate during 2017, 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 and 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, (2) the TRIPRA FMTAC captive deductible (per occurrence and on an aggregated basis) that applies when recovering under the “certified” acts of terrorism insurance or (3) 100% of any “certified” terrorism loss which exceeds \$5 and less than the \$140 TRIPRA trigger up to a maximum recovery of \$140 for any occurrence and in the annual aggregate during 2017, or 100% of any “certified” terrorism loss which exceeds \$5 and less than the \$160 TRIPRA trigger up to a maximum recovery of \$160 for any occurrence and in the annual aggregate during 2018 or 100% of any “certified” terrorism loss which exceeds \$5 and less than the \$180 TRIPRA trigger up to a maximum recovery of \$180 for any occurrence and in the annual aggregate during 2019.

Additionally, MTA purchases coverage for acts of terrorism which are not certified under TRIPRA to a maximum of \$182.8 in 2017, \$193.5 in 2018 and \$204.3 in 2019. 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, 2019.

**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*. This Statement established standards for the measurement, recognition, and display of OPEB expense/expenditures and related liabilities (assets), note disclosures, and if applicable, required supplementary information (“RSI”) in the financial reports of state and local governmental employers. In June 2005, GASB issued Statement No. 47, *Accounting for Termination Benefits*. This statement established accounting standards for termination benefits. For termination benefits provided through an existing defined benefit OPEB plan, the provisions of this Statement should be implemented simultaneously with the requirements of GASB Statement No. 45. The MTA has adopted these standards for its Postemployment Benefits Other Than Pensions.

**Premium 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. Had the new accounting principle been used for all comparative periods presented within, the 2016 Change in Net Position would have been \$(168).

### 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, 2017 and 2016 (in millions):

	2017		2016	
	Carrying Amount	Bank Balance	Carrying Amount	Bank Balance
<b>FDIC insured or collateralized deposits</b>	\$ 88	\$ 87	\$ 182	\$ 162
<b>Uninsured and not collateralized</b>	<u>195</u>	<u>143</u>	<u>550</u>	<u>155</u>
<b>Total Balance</b>	<u>\$ 283</u>	<u>\$ 230</u>	<u>\$ 732</u>	<u>\$ 317</u>

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

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

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

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

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

The MTA had the following recurring fair value measurements as of December 31, 2017 and 2016 (in millions):

Investments by fair value level	December 31,	Fair Value Measurements		December 31,	Fair Value Measurements	
	2017	Level 1	Level 2	2016	Level 1	Level 2
Debt Securities:						
U.S. treasury securities	\$ 4,333	\$ 4,053	\$ 280	\$ 3,546	\$ 3,359	\$ 187
U.S. government agency	387	144	243	549	-	549
Commercial paper	877	-	877	1,397	-	1,397
Asset-backed securities	39	-	39	35	-	35
Commercial mortgage-backed securities	30	-	30	33	-	33
Foreign bonds	9	9	-	13	13	-
Corporate bonds	149	149	-	165	165	-
Tax Benefit Lease Investments:						
U.S. treasury securities	177	177	-	172	172	-
U.S. government agency	114	-	114	103	-	103
Repurchase agreements	122	122	-	73	73	-
Money Market Funds	6	-	6	6	-	6
Total debt securities	6,243	4,654	1,589	6,092	3,782	2,310
Equity securities	25	25	-	21	21	-
<b>Total investments by fair value level</b>	<b>6,268</b>	<b>\$ 4,679</b>	<b>\$ 1,589</b>	<b>6,113</b>	<b>\$ 3,803</b>	<b>\$ 2,310</b>
Other	120			119		
<b>Total Investments</b>	<b>\$ 6,388</b>			<b>\$ 6,232</b>		

Investments classified as Level 1 of the fair value hierarchy, totaling \$4,679 and \$3,803 as of December 31, 2017 and 2016, 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 \$357 and \$652, U.S. treasury securities totaling \$280 and \$187, commercial paper totaling \$877 and \$1,397, asset-backed securities totaling \$39 and \$35, commercial mortgage-backed securities totaling \$30 and \$33, and money market instruments totaling \$6 and \$6, as of December 31, 2017 and 2016, respectively, classified in Level 2 of the fair value hierarchy, are valued using matrix pricing techniques maintained by a third party pricing service. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices and indices. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from a third party pricing service or our custodian bank.

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

All investments, other than the investments restricted for capital lease obligations, are either insured or registered and held by the MTA or its agent in the MTA's name. Investments restricted for capital lease obligations are either held by MTA or its agent in the MTA's name or held by a custodian as collateral for

MTA's obligation to make rent payments under capital lease obligations. Investments had weighted average yields of 1.18% and 0.56% for the years ended December 31, 2017 and 2016, respectively.

**Credit Risk** — At December 31, 2017 and 2016, 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, 2017	Percent of Portfolio	December 31, 2016	Percent of Portfolio
A-1+	\$ 336	5 %	\$ 504	8 %
A-1	869	14	1,397	23
AAA	101	2	88	1
AA+	53	1	46	1
AA	24	1	35	0
A	91	1	100	2
BB	1	-	-	-
BBB	43	1	49	1
Not rated	154	2	101	2
U.S. Government	4,571	73	3,774	62
Total	6,243	100 %	6,094	100 %
Equities and capital leases	145		138	
Total investment	\$ 6,388		\$ 6,232	

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

(In millions)	December 31, 2017		December 31, 2016	
	Fair Value	Duration (in years)	Fair Value	Duration (in years)
U.S. Treasuries	\$ 4,333	2.19	\$ 3,546	5.44
Federal Agencies	387	4.15	549	2.95
Tax benefits lease investments	291	9.12	275	8.87
Repurchase agreement	122	-	73	-
Certificate of deposits	6	-	6	-
Commercial paper	877	0.04	1,397	0.04
Asset-backed securities <sup>(1)</sup>	39	1.08	35	1.04
Commercial mortgage-backed securities <sup>(1)</sup>	30	5.63	33	3.04
Foreign bonds <sup>(1)</sup>	9	0.00	13	0.00
Corporates <sup>(1)</sup>	149	5.27	165	2.56
Total fair value	6,243		6,092	
Modified duration		2.37		3.93
Equities <sup>(1)</sup>	25		21	
Total	6,268		6,113	
Investments with no duration reported	120		119	
Total investments	\$ 6,388		\$ 6,232	

<sup>(1)</sup> 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](http://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](http://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](http://www.mta.info).

#### **4. MTA Defined Benefit Plan —**

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

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

The 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](http://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](http://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. This report may be found at [www.osc.state.ny.us/retire/publications/index.php](http://www.osc.state.ny.us/retire/publications/index.php) or obtained by writing to the New York State and Local Retirement System, 110 State Street, Albany, NY 12244.

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

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

***Benefits Provided***

***1. Additional Plan —***

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

for life. Payments commence to an employee referred to in: (a) only after attaining age 50, or (b) only after attaining age 65.

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

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

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

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

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

## ***2. MaBSTOA Plan*** —

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

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

#### *Tier 1 —*

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

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

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

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

#### *Tier 2 —*

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

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

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

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

#### *Tiers 3, 4—*

*Eligibility and Benefit Calculation:* Tier 3 and 4 members in the Regular 62 and 5 Plan must be at least age 62 with the completion of at least 5 years of service to be eligible to collect a service retirement benefit. Generally, the benefit for members with at least 20 years of service, is equal to 2.0% of Final Average Compensation ("FAC") for the first 30 years of service plus 1.5% of FAC for years of service in excess of

30. FAC is defined as the highest average earnings over three consecutive years, of which earnings in a year cannot exceed 110% of the average of the two preceding years. If the member completes less than 20 years of credited service, the benefit equals 1- 2/3% of FAC multiplied by years of service. For early retirement, members must be at least age 55 with the completion of at least 5 years of service. The benefit equals the service retirement benefit reduced by 6% for each of the first two years prior to age 62, and by 3% for years prior to age 60.

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

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

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

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

#### *Tier 6—*

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

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

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

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

### **3. MNR Cash Balance Plan —**

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

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

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

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

form of payment on that date. The benefit is based on service to the participant's date of death and is payable beginning on the date the participant would have attained age 55.

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

#### **4. MTA Defined Benefit Plan —**

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

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

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

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

Retirement benefits paid from the Plan to covered represented MTA Bus employees include service retirement allowances or early retirement allowances. Under the programs covering all represented employees at Baisley Park, Eastchester, La Guardia, Spring Creek, and Yonkers Depots and the represented employees at College Point Depot, JFK, Far Rockaway a participant is eligible for a service retirement allowance upon termination if the participant has attained age sixty-five and completed at least five years of credited service or if the participant has attained age 57 and completed at least 20 years of credited service. A participant hired prior to June 2009 from Baisley Park, College Point, and La Guardia Depots is eligible for an early retirement allowance if the participant has attained age 55 and completed 20 years of credited service. Terminated participants with five or more years of credited service who are not eligible to receive a service retirement allowance or early retirement allowance are eligible for a

deferred vested benefit. Deferred vested benefits are payable on an unreduced basis on or after the participant attains age 65.

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

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

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

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

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

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

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

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

Death benefits are paid to the participant's beneficiary in the event of the death of a covered MTA Metro-North Railroad, post-1987 MTA Long Island Rail Road or MTA Staten Island Railway employee after completion of one year of credited service. The death benefit payable is calculated based on a multiple of a participant's salary based on years of credited service up to three years and is reduced beginning at age 61. There is also a post-retirement death benefit which, in the 1st year of retirement, is equal to 50% of the pre-retirement death benefit amount, whichever is greater, 25% the 2nd year and 10% of the death benefit payable at age 60 for the 3rd and later years. For the Police 20 Year Retirement Program, the death benefit is payable after ninety days of credited MTA Police service, and is equal to three times their salary. For non-Police groups, this death benefit is payable in a lump sum distribution while for Police, the member or the beneficiary can elect to have it paid as an annuity. The MTA Police do not have a post retirement benefit.

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

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

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

Moreover, the spouses of the above employees who are vested are entitled to a presumed retirement survivor annuity which is based on a 50% Joint and Survivor annuity. The date as of which such annuity

is determined and on which it commences varies among the different programs depending on whether the participants are eligible for retirement and for payment of retirement benefits.

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

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

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

## **5. NYCERS —**

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

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

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

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

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

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

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

#### **6. NYSLERS —**

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

##### *Tiers 1 and 2 —*

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

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

##### *Tiers 3, 4, and 5 —*

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

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

*Tier 6 —*

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

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

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

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

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

## Membership

As of January 1, 2017, January 1, 2016 and January 1, 2015, the dates of the most recent actuarial valuations, membership data for the following pension plans are as follows:

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

Membership at:	January 1, 2016		January 1, 2015		TOTAL
	MNR Cash Balance Plan	Additional Plan	MaBSTOA Plan	MTA Defined Benefit Plan	
Active Plan Members	7	282	8,122	17,156	25,567
Retirees and beneficiaries receiving benefits	27	5,985	5,394	11,382	22,788
Vested formerly active members not yet receiving benefits	14	53	1,054	1,417	2,538
Total	48	6,320	14,570	29,955	50,893

## Contributions and Funding Policy

### 1. Additional Plan —

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

Upon termination of employment before retirement, vested participants who have been required to contribute must choose to: (1) receive a refund of their own contributions, including accumulated interest at rates established by the MTA Long Island Railroad's Board of Managers of Pensions (1.5% in 2016 and 2015), or (2) leave their contributions in the Additional Plan until they retire and become entitled to the pension benefits. Non-vested participants who have been required to contribute will receive a refund of their own contributions, including accumulated interest at rates established by the MTA Long Island Railroad's Board of Managers of Pensions (1.5% in 2016 and 2015).

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

### 2. MaBSTOA Plan —

The contribution requirements of MaBSTOA Plan members are established and may be amended only by the MaBSTOA Board in accordance with Article 10.01 of the MaBSTOA Plan. MaBSTOA's funding policy for periodic employer contributions is to provide for actuarially determined amounts that are

designed to accumulate sufficient assets to pay benefits when due. It is MaBSTOA's policy to fund, at a minimum, the current year's normal pension cost plus amortization of the unfunded actuarial accrued liability.

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

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

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

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

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

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

### ***3. MNR Cash Balance Plan —***

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

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

### ***4. MTA Defined Benefit Plan —***

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

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

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

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

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

30, 2017, or the completion of required years of credited service as per the relevant collective bargaining agreements.

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

MTA Bus is required to make significant annual contributions to the MTA Plan on a current basis. Pursuant to the January 1, 2014 and January 1, 2013 actuarial valuations for the MTA Plan, which included amounts for actuarial assets and liabilities relating to both active and retired members for most portions of the former private plans (excepting, for example, members of the Transport Workers Union— New York City Private Bus Lines Pension Trust who were working on school bus routes which did not become part of MTA Bus service), MTA Bus recorded pension expense equal to the valuation annual required contribution of \$44.3 and \$45.9 for the years ended December 31, 2016 and 2015, respectively. Both of these employer contributions were paid to the MTA Plan in their respective years.

##### **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 and the respective contribution rates as a percent of covered payroll for the years ended December 31, 2017 and 2016 are as follows:

Year-ended December 31, (\$ in millions)	2017		2016	
	Actual Employer Contributions	Contributions as a percentage of covered payroll	Actual Employer Contributions	Contributions as a percentage of covered payroll
Additional Plan	\$ 221.5	1080.62%	\$ 151.1	515.49%
MaBSTOA Plan	202.7	27.04%	220.7	30.80%
MNR Cash Balance Plan	- *	0.00%	- *	2.68%
MTA Defined Benefit Plan	321.9	17.33%	280.8	15.73%
NYCERS	800.9	21.25%	797.9	22.64%
NYSLERS	14.0	13.46%	13.0	13.69%
Total	<u>\$ 1,561.0</u>		<u>\$ 1,463.5</u>	

\* MNR Cash Balance Plan's actual employer contribution for the years ended December 31, 2017 and 2016 was \$0 thousand and \$23 thousand, respectively.

### ***Net Pension Liability***

The MTA's net pension liabilities for each of the pension plans reported at December 31, 2017 and December 31, 2016 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.

Year ended December 31,	2017		2016	
	Plan Measurement Date	Plan Valuation Date	Plan Measurement Date	Plan Valuation Date
<b>Additional Plan</b>	December 31, 2016	January 1, 2016	December 31, 2015	January 1, 2015
<b>MaBSTOA Plan</b>	December 31, 2016	January 1, 2016	December 31, 2015	January 1, 2015
<b>MNR Cash Balance Plan</b>	December 31, 2016	January 1, 2017	December 31, 2015	January 1, 2016
<b>MTA Defined Benefit Plan</b>	December 31, 2016	January 1, 2016	December 31, 2015	January 1, 2015
<b>NYCERS</b>	June 30, 2017	June 30, 2015	June 30, 2016	June 30, 2014
<b>NYSLERS</b>	March 31, 2017	April 1, 2016	March 31, 2016	April 1, 2015

### ***Pension Plan Fiduciary Net Position***

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

## Actuarial Assumptions

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

Valuation Date:	Additional Plan		MaBSTOA Plan		MNR Cash Balance Plan	
	January 1, 2016	January 1, 2015	January 1, 2016	January 1, 2015	January 1, 2017	January 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 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.	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 non-operating employees per year, depending on years of service.	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%.	2.30%	2.30%
Cost-of Living Adjustments	Not applicable	Not applicable	1.375% per annum.	1.375% per annum.	Not applicable	Not applicable
Valuation Date:	MTA Defined Benefit Plan		NYCERS		NYSLERS	
	January 1, 2016	January 1, 2015	June 30, 2015	June 30, 2014	April 1, 2016	April 1, 2015
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 MTA Bus hourly employees.	Varies by years of employment, and employee group; 3.5% for 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%; 3.50% 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, 2017, 2016, and 2015 valuations for the MTA plans are based on January 1, 2006 through December 31, 2011 experience study dated June 5, 2014. Mortality assumption 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 75% of the rates from the RP-2000 Disabled 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 female healthy rates, respectively. 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, 2015 and June 30, 2014 valuations are based, in part, on the 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, 2016 and April 1, 2015 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.

<b>Pension Plan</b>	<b>Plan Measurement Date</b>	<b>Rate</b>
Additional Plan	December 31, 2016	7.00%
MaBSTOA Plan	December 31, 2016	7.00%
MNR Cash Balance Plan	December 31, 2016	4.00%
MTA Defined Benefit Plan	December 31, 2016	7.00%
NYCERS	June 30, 2017	7.00%
NYSLERS	March 31, 2017	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:

<b>Asset Class</b>	<b>Additional Plan</b>		<b>MaBSTOA Plan</b>	
	<b>Target Asset Allocation</b>	<b>Long-Term Expected Real Rate of Return</b>	<b>Target Asset Allocation</b>	<b>Long-Term Expected Real Rate of Return</b>
US Core Fixed Income	10.00%	1.67%	10.00%	1.67%
US High Yield Bonds	8.00%	5.04%	8.00%	5.04%
Global Bonds	10.00%	0.28%	10.00%	0.28%
Emerging Markets Bonds	3.00%	3.78%	3.00%	3.78%
US Large Caps	10.00%	4.80%	10.00%	4.80%
US Small Caps	5.50%	6.06%	5.50%	6.06%
Global Equity	10.00%	5.49%	10.00%	5.49%
Foreign Developed Equity	10.00%	6.06%	10.00%	6.06%
Emerging Markets Equity	3.50%	8.39%	3.50%	8.39%
Global REITs	5.00%	5.77%	5.00%	5.77%
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%	3.45%	15.00%	3.45%
	<b>100.00%</b>		<b>100.00%</b>	
Assumed Inflation - Mean		2.50%		2.50%
Assumed Inflation - Standard Deviation		1.85%		1.85%
Portfolio Nominal Mean Return		7.03%		7.03%
Portfolio Standard Deviation		11.54%		11.54%
Long Term Expected Rate of Return selected by MTA		7.00%		7.00%

Asset Class	MTA Defined Benefit Plan		MNR Cash Balance Plan	
	Target Asset Allocation	Long-Term	Target Asset Allocation	Long-Term
		Expected Real Rate of Return		Expected Real Rate of Return
US Core Fixed Income	10.00%	1.67%	100.00%	1.17%
US High Yield Bonds	8.00%	5.04%		
Global Bonds	10.00%	0.28%		
Emerging Markets Bonds	3.00%	3.78%		
US Large Caps	10.00%	4.80%		
US Small Caps	5.50%	6.06%		
Global Equity	10.00%	5.49%		
Foreign Developed Equity	10.00%	6.06%		
Emerging Markets Equity	3.50%	8.39%		
Global REITs	5.00%	5.77%		
Private Real Estate Property	3.00%	3.64%		
Private Equity	7.00%	8.99%		
Hedge Funds - MultiStrategy	15.00%	3.45%		
	<u>100.00%</u>		<u>100.00%</u>	
Assumed Inflation - Mean		2.50%		2.50%
Assumed Inflation - Standard Deviation		1.85%		1.85%
Portfolio Nominal Mean Return		7.03%		3.69%
Portfolio Standard Deviation		11.54%		4.55%
Long Term Expected Rate of Return selected by MTA		7.00%		4.00%

Asset Class	NYCERS		NYSLERS	
	Target Asset Allocation	Long-Term	Target Asset Allocation	Long-Term
		Expected Real Rate of Return		Expected Real Rate of Return
U.S. Public Market Equities	29.00%	5.70%	36.00%	4.55%
International Public Market Equities	13.00%	6.10%	14.00%	6.35%
Emerging Public Market Equities	7.00%	7.60%	0.00%	0.00%
Private Market Equities	7.00%	8.10%	10.00%	7.75%
Fixed Income	33.00%	3.00%	17.00%	1.31%
Alternatives (Real Assets, Hedge Funds)	11.00%	4.70%	3.00%	5.54%
Real Estate	-	-	10.00%	5.80%
Absolute Return Strategies	-	-	2.00%	4.00%
Opportunistic Portfolio	-	-	3.00%	5.89%
Cash	-	-	1.00%	-0.25%
Inflation-indexed Bonds	-	-	4.00%	1.50%
	<u>100.00%</u>		<u>100.00%</u>	
Assumed Inflation - Mean		2.50%		2.50%
Long Term Expected Rate of Return		7.00%		7.00%

## Discount Rate

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

Year ended December 31,  Pension Plan	Discount Rate			
	2017		2016	
	Plan Measurement Date	Rate	Plan Measurement Date	Rate
<b>Additional Plan</b>	December 31, 2016	7.00%	December 31, 2015	7.00%
<b>MaBS TOA Plan</b>	December 31, 2016	7.00%	December 31, 2015	7.00%
<b>MNR Cash Balance Plan</b>	December 31, 2016	4.00%	December 31, 2015	4.00%
<b>MTA Defined Benefit Plan</b>	December 31, 2016	7.00%	December 31, 2015	7.00%
<b>NYCERS</b>	June 30, 2017	7.00%	June 30, 2016	7.00%
<b>NYS LERS</b>	March 31, 2017	7.00%	March 31, 2016	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, 2017, based on the December 31, 2016 measurement date, and for the year ended December 31, 2016, based on the December 31, 2015 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, 2015	\$ 1,562,251	\$ 726,198	\$ 836,053	\$ 3,391,989	\$ 2,292,316	\$ 1,099,673
Changes for fiscal year 2016:						
Service Cost	2,752	-	2,752	82,075	-	82,075
Interest on total pension liability	104,093	-	104,093	236,722	-	236,722
Effect of economic /demographic (gains) or losses	15,801	-	15,801	13,784	-	13,784
Benefit payments	(158,593)	(158,593)	-	(187,823)	(187,823)	-
Administrative expense	-	(611)	611	-	(186)	186
Member contributions	-	884	(884)	-	18,472	(18,472)
Net investment income	-	58,239	(58,239)	-	212,259	(212,259)
Nonemployer contributions	-	70,000	(70,000)	-	-	-
Employer contributions	-	81,100	(81,100)	-	220,697	(220,697)
Balance as of December 31, 2016	<u>\$ 1,526,304</u>	<u>\$ 777,217</u>	<u>\$ 749,087</u>	<u>\$ 3,536,747</u>	<u>\$ 2,555,735</u>	<u>\$ 981,012</u>

	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, 2014	\$ 1,602,159	\$ 782,852	\$ 819,307	\$ 3,331,464	\$ 2,265,293	\$ 1,066,171
<b>Changes for fiscal year 2015:</b>						
Service Cost	3,441	-	3,441	77,045	-	77,045
Interest on total pension liability	106,987	-	106,987	232,405	-	232,405
Effect of economic /demographic (gains) or losses	6,735	-	6,735	(68,997)	-	(68,997)
Benefit payments	(157,071)	(157,071)	-	(179,928)	(179,928)	-
Administrative expense	-	(1,218)	1,218	-	(88)	88
Member contributions	-	1,108	(1,108)	-	16,321	(16,321)
Net investment income	-	527	(527)	-	(24,163)	24,163
Employer contributions	-	100,000	(100,000)	-	214,881	(214,881)
Balance as of December 31, 2015	<u>\$ 1,562,251</u>	<u>\$ 726,198</u>	<u>\$ 836,053</u>	<u>\$ 3,391,989</u>	<u>\$ 2,292,316</u>	<u>\$ 1,099,673</u>

	MNR Cash Balance Plan			MTA Defined Benefit Plan		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(in thousands)					
Balance as of December 31, 2015	\$ 634	\$ 612	\$ 22	\$ 4,364,946	\$ 3,074,777	\$ 1,290,169
<b>Changes for fiscal year 2016:</b>						
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
Effect of assumption changes or inputs	-	-	-	-	-	-
Benefit payments	(77)	(77)	-	(209,623)	(209,623)	-
Administrative expense	-	-	-	-	(3,051)	3,051
Member contributions	-	-	-	-	29,392	(29,392)
Net investment income	-	16	(16)	-	247,708	(247,708)
Employer contributions	-	23	(23)	-	280,768	(280,768)
Balance as of December 31, 2016	<u>\$ 566</u>	<u>\$ 574</u>	<u>\$ (8)</u>	<u>\$ 4,761,877</u>	<u>\$ 3,419,971</u>	<u>\$ 1,341,906</u>

	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, 2014	\$ 710	\$ 698	\$ 12	\$ 4,099,738	\$ 3,065,220	\$ 1,034,518
<b>Changes for fiscal year 2015:</b>						
Service Cost	-	-	-	124,354	-	124,354
Interest on total pension liability	29	-	29	288,820	-	288,820
Effect of plan changes	-	-	-	6,230	-	6,230
Effect of economic / demographic (gains) or losses	(10)	-	(10)	121,556	-	121,556
Effect of assumption changes or inputs	18	-	18	(76,180)	-	(76,180)
Benefit payments	(113)	(113)	-	(199,572)	(199,572)	-
Administrative expense	-	3	(3)	-	(1,962)	1,962
Member contributions	-	-	-	-	34,519	(34,519)
Net investment income	-	6	(6)	-	(45,122)	45,122
Employer contributions	-	18	(18)	-	221,694	(221,694)
Balance as of December 31, 2015	<u>\$ 634</u>	<u>\$ 612</u>	<u>\$ 22</u>	<u>\$ 4,364,946</u>	<u>\$ 3,074,777</u>	<u>\$ 1,290,169</u>

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

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

Measurement Date:	December 31, 2016			December 31, 2015		
	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	\$ 871,350	\$ 749,087	\$ 642,973	\$ 963,427	\$ 836,053	\$ 725,673
MaBSTOA Plan	1,376,916	981,012	643,826	1,480,961	1,099,673	775,092
MTA Defined Benefit Plan	1,936,639	1,341,906	840,176	1,835,699	1,290,169	830,112
	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	\$ 25,200	\$ (7,899)	\$ (37,092)	\$ 60,689	\$ 21,847	\$ (12,361)

### ***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, 2015 and June 30, 2014 actuarial valuations, rolled forward to June 30, 2017 and June 30, 2016, respectively, and the proportion percentage of the aggregate net pension liability allocated to the MTA:

	NYCERS	
	June 30, 2017	June 30, 2016
	(\$ in thousands)	
MTA's proportion of the net pension liability	24.096%	23.493%
MTA's proportionate share of the net pension liability	\$ 5,003,811	\$ 5,708,052

The following table presents the MTA's proportionate share of the net pension liability of NYSLERS based on the April 1, 2016 and April 1, 2015 actuarial valuations, rolled forward to March 31, 2017 and March 31, 2016, respectively, and the proportion percentage of the aggregate net pension liability allocated to the MTA:

	NYSLERS	
	March 31, 2017	March 31, 2016
	(\$ in thousands)	
MTA's proportion of the net pension liability	0.311%	0.303%
MTA's proportionate share of the net pension liability	\$ 29,239	\$ 48,557

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, 2017 and 2016 and to NYSLERS for the plan's fiscal year-end March 31, 2017 and 2016, 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, 2017			June 30, 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%)
NYCERS	\$ 7,231,780	\$ 5,003,811	\$ 3,046,531	\$ 7,826,325	\$ 5,708,052	\$ 3,933,870
Measurement Date:	March 31, 2017			March 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%)
NYSLERS	\$ 93,385	\$ 29,239	\$ (24,995)	\$ 109,494	\$ 48,557	\$ (2,931)

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

For the years ended December 31, 2017 and 2016, the MTA recognized pension expense related to each pension plan as follows (in \$ thousands):

Pension Plan	December 31, 2017	December 31, 2016
Additional Plan	\$ 84,583	\$ 78,604
MaBSTOA Plan	156,302	159,377
MNR Cash Balance plan	(10)	4
MTA Defined Benefit Plan	346,535	239,927
NYCERS	595,905	691,210
NYSLERS	17,486	17,880
<b>Total</b>	<b>\$ 1,200,801</b>	<b>\$ 1,187,002</b>

For the years ended December 31, 2017 and 2016, 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, 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

For the Year Ended December 31, 2016	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	\$ -	\$ -	\$ -	\$ 59,108	\$ -	\$ -	107,691	-
Changes in assumptions	-	-	-	-	-	-	-	66,413
Net difference between projected and actual earnings on pension plan investments	52,949	-	174,012	-	19	(6)	266,166	-
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	-	-	-	-	3,230	3,230
Employer contributions to the plan subsequent to the measurement of net pension liability	151,100	-	220,697	-	23	-	280,767	-
Total	\$ 204,049	\$ -	\$ 394,709	\$ 59,108	\$ 42	\$ (6)	\$ 657,854	\$ 69,643

For the Year Ended December 31, 2016	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	\$ -	\$ 162,021	\$ 245	\$ 5,756	\$ 107,936	\$ 226,885
Changes in assumptions	421,322	-	12,949	-	434,271	66,413
Net difference between projected and actual earnings on pension plan investments	308,781	-	28,807	-	830,734	(6)
Changes in proportion and differences between contributions and proportionate share of contributions	(41,334)	(1,352)	2,398	198	(35,706)	2,076
Employer contributions to the plan subsequent to the measurement of net pension liability	422,768	-	12,980	-	1,088,335	-
Total	<u>\$ 1,111,537</u>	<u>\$ 160,669</u>	<u>\$ 57,379</u>	<u>\$ 5,954</u>	<u>\$ 2,425,570</u>	<u>\$ 295,368</u>

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

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

Pension Plan	Recognition Period (in years)		
	Differences between expected and actual experience	Changes in proportion and differences between employer contributions and proportionate share of contributions	Changes in actuarial assumptions
Additional Plan	1.00	N/A	N/A
MaBSTOA Plan	6.50	N/A	6.30
MNR Cash Balance Plan	1.00	N/A	1.00
MTA Defined Benefit Plan	8.10	8.10	7.80
NYCERS	5.60	5.60	3.33
NYSLERS	5.00	5.00	5.00

For the years ended December 31, 2017 and 2016, \$1,179.4 and \$1,088.3 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, 2018 and December 31, 2017, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions at December 31, 2017 will be recognized as pension expense as follows:

	<u>Additional Plan</u>	<u>MaBSTOA Plan</u>	<u>MNR Cash Balance plan</u>	<u>MTA Defined Benefit Plan</u>	<u>NYCERS</u>	<u>NYSLERS</u>	<u>Total</u>
Year Ending December 31:				(in thousands)			
2018	12,591	26,605	4	82,465	(16,688)	6,271	111,248
2019	12,591	26,605	4	82,465	157,042	6,271	284,978
2020	8,890	17,892	6	62,958	(9,102)	5,797	86,441
2021	(1,572)	(18,811)	2	11,047	(137,250)	(3,718)	(150,302)
2022	-	(1,165)	-	16,746	7,984	-	23,565
Thereafter	-	1,060	-	27,160	-	-	28,220
	<u>\$ 32,500</u>	<u>\$ 52,186</u>	<u>\$ 16</u>	<u>\$ 282,841</u>	<u>\$ 1,986</u>	<u>\$ 14,621</u>	<u>\$ 384,150</u>

### *Deferred Compensation Program*

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

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

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

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

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

- Tier 1 – The MTA Target-Year Lifecycle Funds, which are comprised of a mix of several funds, most of which are available as separate investments in the Deferred Compensation Program. The particular mix of investments for each Fund is determined by the “target” date, which is the date the money is intended to be needed for retirement income.

- Tier 2 - The MTA Index Funds offer a tier of index funds, which invest in the securities of companies that are included in a selected index, such as the Standard & Poor's 500 (large cap) Index or Russell Mid Cap Index.
- Tier 3 – The MTA Actively Managed Portfolios, which are comprised of actively managed portfolios that are directed by one or a team of professional managers who buy and sell a variety of holdings in an effort to outperform a selected index. These institutional strategies provide participants with a diversified array of distinct asset classes, with a single fund option in each class to simplify the decision making process.
- Tier 4 – Self-Directed Mutual Fund Option is designed for the more experienced investors. Offers access to an expanded universe of mutual funds from hundreds of well-known mutual fund families. Participants may invest only a portion of their account balances in this Tier.

In 2011, the Deferred Compensation Program began offering Roth contributions. Employees can elect after-tax Roth contributions and before-tax contributions in both the 401(k) Plan and the 457 Plan. The total combination of Roth after-tax contributions and regular before-tax contributions cannot exceed the IRS maximum of \$18,000 dollars or \$24,000 dollars for those over age 50 for the year ended December 31, 2017.

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

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

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

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

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

As a result of collective bargaining, these members were offered a one-time opportunity to opt-out of the matching contributions and employer basic contributions and, instead, participate in the MTA Defined Benefit Pension Plan. No further matching or employer basic contributions will be made for those who make such election.

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

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

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

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 members are immediately 100% vested in these employer contributions.

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

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

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

**Forfeitures** – Nonvested contributions are forfeited upon termination of employment. Such forfeitures are used to cover a portion of the pension plan’s administrative expenses.

	<b>December 31,</b>	
	<u>2017</u>	<u>2016</u>
	(In thousands)	
Employer 401K contributions	\$ 4,109	\$ 3,973

## 5. OTHER POSTEMPLOYMENT BENEFITS

The MTA has implemented GASB Statement No. 45, *Accounting and Financial Reporting for Employers for Postemployment Benefits Other Than Pensions* (“GASB 45”). This Statement established the standards for the measurement, recognition, and display of Other Postemployment Benefits (“OPEB”) expense/expenditures and related liabilities (assets), note disclosures, and, if applicable, required supplementary information (“RSI”) in the financial reports of state and local governmental employers.

Postemployment benefits are part of an exchange of salaries and benefits for employee services rendered. Most OPEB have been funded on a pay-as-you-go basis and have been reported in financial statements when the promised benefits are paid. GASB 45 requires state and local government’s financial reports to reflect systematic, accrual-basis measurement and recognition of OPEB cost (expense) over a period that approximates employees’ years of service and provides information about actuarial accrued liabilities associated with the OPEB and to what extent progress is being made in funding the plan.

The Other Postemployment Benefits Plan (“the 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. The 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 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](http://www.mta.info).

**Plan Description** — The benefits provided by the MTA Group include medical, pharmacy, dental, vision, and life insurance, plus monthly supplements for Medicare Part B or Medicare supplemental plan reimbursements and welfare fund contributions. The different types of benefits provided vary by agency and employee type (represented employees versus management). All benefits are provided upon retirement as stated in the applicable pension plan, although some agencies provide benefits to some members if terminated within 5 years of attaining retirement eligibility. Employees of the MTA Group 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.

The MTA Group participates in the New York State Health Insurance Program (“NYSHIP”) to provide medical and prescription drug benefits, including Medicare Part B reimbursements, to many of its employees and retirees. NYSHIP provides 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, 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.

GASB Statement No. 45 requires employers to perform periodic actuarial valuations to determine annual accounting costs, and to keep a running tally of the extent to which these amounts are over or under funded.

The valuation must be performed at least biennially. The most recent valuation was performed as of January 1, 2016. Forty-six thousand plan participants were receiving retirement benefits as of December 31, 2016, the last valuation reporting period.

During 2012, MTA funded \$250 into an OPEB Trust (“Trust”) allocated between MTA Headquarters and MTA New York City Transit and funded an additional \$50 during 2013 allocated between MTA Long Island Railroad and MTA Metro-North Railroad. There have been no further contributions made to the Trust. Under GASB Statement No. 45, the discount rate is based on the assets in a trust, the assets of the employer or a blend of the two based on the anticipated funding levels of the employer. For this valuation, the discount rate reflects a blend of Trust assets and employer assets. The assumed return on Trust assets is 6.5% whereas the assumed return on employer assets is 3.3% resulting in a discount rate under GASB Statement No. 45 of 3.3%, which is slightly lower than the discount rate of 3.5% used in the prior valuation. This decrease is primarily due to the decrease in Treasury yields and thus returns on employer assets since the prior valuation.

**Annual OPEB Cost (“AOC”) and Net OPEB Obligation** — The MTA’s annual OPEB cost (expense) represents the accrued cost for postemployment benefits under GASB Statement No. 45. Currently, the MTA expenses the actual benefits paid during a year. The cumulative difference between the annual OPEB cost (“new method”) and the benefits paid during a year (“old method”) will result in a net OPEB obligation (the “Net OPEB Obligation”), included in the consolidated statements of net position. The annual OPEB cost is equal to the Annual Required Contribution (the “ARC”) less adjustments if a Net OPEB Obligation exists and plus the interest on Net OPEB Obligations.

**Actuarial Cost, Amortization Methods and Assumptions** - For determining the ARC, the MTA has chosen to use the Frozen Initial Liability cost method (the “FIL Cost Method”), one of the cost methods in accordance with the parameters of GASB Statement No. 45. The initial liability is amortized over a 22-year period. As of the last valuation date, January 1, 2016, the remaining amortization period is 12 years.

The Entry Age Normal (“EAN”) Cost Method is used to determine the initial Frozen Accrued Liability as well as any subsequent changes in Accrued Liability due to changes in the plan and/or actuarial assumptions. The initial Frozen Unfunded Accrued Liability was determined as of January 1, 2006 (2007 for MTA Bus Company) to be used in the financials for the 2007 fiscal year. EAN is used to determine the unfunded actuarial accrued liability in the GASB Statement No. 45 supplementary schedules. The EAN method determines the Accrued Liability for each individual based on a level percent of pay for service accrued through the valuation date.

The Frozen Unfunded Accrued Liability is determined each year as the Frozen Unfunded Accrued Liability for the prior year, increased with interest, reduced by the end-of-year amortization payment and increased or decreased by any new bases established for the current year.

The difference between the Actuarial Present Value of Benefits and the Frozen Unfunded Accrued Liability less the Actuarial Value of Assets, if any, equals the Present Value of Future Normal Cost. The Normal Cost equals the Present Value of Future Normal Cost divided by the present value of future compensation and multiplied by the total of current compensation for members less than certain retirement age.

The Annual Required Contribution (“ARC”) is equal to the sum of the Normal Cost and the amortization for the Frozen Unfunded Accrued Liability with appropriate interest adjustments. Any difference between the ARC and actual plan contributions from the prior year are considered an actuarial gain/loss and thus are included in the development of the Normal Cost. This methodology differs from the approach used for the pension plan where the difference between the ARC and actual plan contributions from the prior year, if any, will increase or decrease the Frozen Unfunded Accrued Liability and will be reflected in

future amortization payments. A different approach was applied to the OPEB benefits because these benefits are not actuarially funded.

**Valuation Date** - The valuation date is the date that all participant and other pertinent information is collected and liabilities are measured. This date may not be more than 24 months prior to the beginning of the fiscal year. The valuation date for this valuation is January 1, 2016, which is 12 months prior to the beginning of the 2017 calendar year.

**Inflation Rate** - 2.5% per annum compounded annually.

**Discount Rate** – GASB Statement No. 45 provides guidance to employers in selecting the discount rate. The discount rate should be based on the estimated long-term investment yield on the investments that are expected to be used to finance the benefits. If there are no plan assets, assets of the employer should be used to derive the discount rate. This would most likely result in a lower discount rate and thus, liabilities significantly higher than if the benefits are prefunded. In recognition of the decrease in short-term investment yields, the discount rate for this valuation has been lowered from 3.5% to 3.3%.

**Healthcare Reform** - The results of this valuation reflect our understanding of the impact in future health costs due to the Affordable Care Act (“ACA”) passed into law in March 2010. An excise tax for high cost health coverage or “Cadillac” health plans was included in ACA. The provision levies a 40% tax on the value of health plan costs that exceed certain thresholds for single coverage or family coverage. If, between 2010 and 2018, the cost of health care insurance rises more than 55%, the threshold for the excise tax will be adjusted. Legislative changes passed in December 2015 have delayed the effective date of the excise tax until 2020. However, the calculation of the threshold amounts remains unchanged. Also included in ACA are various fees (including, but not limited to, the Patient-Centered Outcomes Research Institute fee, Transitional Reinsurance Program fee, and the Health Insurer fee) associated with the initiation of health exchanges in 2014. The current provisions of ACA should be reflected in the projection of benefits and therefore, include the value of the excise tax and ACA fees which apply to the plan(s). It is assumed that there will be no changes to the current law and that there will be no changes in plan design to help mitigate the impact of the excise tax.

The legislative changes from H.R.1, originally known as the “Tax Cuts and Jobs Act”, and H.R. 195, the “Extension of Continuing Appropriations Act, 2018”, are not reflected in this valuation as passage occurred after the measurement date.

The OPEB-specific actuarial assumptions used in the most recent biennial valuation are as follows:

Valuation date	January 1, 2016
Actuarial cost method	Frozen Initial Liability
Discount rate	3.30%
Price inflation	2.5% per annum, compounded annually
Per-Capita retiree contributions	*
Amortization method	Frozen Initial Liability
Remaining amortization period	12 years
Period closed or open	Closed

\* In general, all coverages are paid for by the MTA. However, for MTAHQ members retired prior to 1997, pay a portion of the premium, depending on the year they retired.

Actuarial valuation involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and that actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

**Per Capita Claim Costs** — Use of a blended premium rate for active employees and retirees under age 65 is a common practice. Health costs generally increase with age, so the blended premium rate is higher than the true underlying cost for actives and the blended premium is lower than the true underlying cost for retirees. For retirees, this difference is called the implicit rate subsidy. Since GASB Statement No. 45 only requires an actuarial valuation for retirees, it requires the plan sponsor to determine the costs of these benefits by removing the subsidy. However in prior years a plan sponsor may use the premiums without adjustment for age if the employer participates in a community-rated plan, in which the premium rates reflect projected health claims experience of all participating employers, or if the insurer would offer the same premium rate if only non-Medicare-eligible retirees were covered.

Effective with this valuation, age adjustments are required for valuing NYSHIP benefits due to a change in actuarial standards. Age adjustments reflect that health costs are typically higher for retirees under age 65 than an average active population and, upon reaching Medicare, health costs are reduced as NYSHIP becomes the secondary payer.

The medical and pharmacy benefits provided to TWU Local 100, ATU 1056, ATU 726 and other eligible represented MTA New York City Transit members, represented MTA Bus members and represented MTA Staten Island Railway members are self-insured as well as some Pre-NYSHIP MTA New York City Transit members. For these benefits, a per capita claims cost assumptions was developed that vary by age, gender and benefit type. The per capita costs assumptions reflect medical and pharmacy claims information, including the Employer Group Waiver Plan (“EGWP”) for providing pharmacy benefits to Medicare-eligible retirees, for 2015 and 2016.

**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 2017. Long-term trend increases are 4% for dental and vision benefits and 4.5% for Medicare Part B reimbursements, but not more than projected medical trends excluding any excise tax adjustments. The self-insured trend is applied directly for represented employees of by MTA New York City Transit, MTA Staten Island Railway and MTA Bus. Note that for purposes of estimating the impact of the Excise Tax, the self-insured trends for MTA Bus and MTA New York City Transit differ. The following lists illustrative rates for the NYSHIP and self-insured trend assumptions for MTA New York City Transit, MTA Staten Island Railway and MTA Bus (all amounts are in percentages).

## Healthcare Cost Trend Rates

Fiscal Year	MTA New York City Transit and MTA					
	NYSHIP		Staten Island Railway		MTA Bus	
	< 65	>=65	< 65	>=65	< 65	>=65
2016	11.8	0.0	7.3	4.9	7.3	4.9
2017	6.7	6.4	7.1	4.9	7.1	4.9
2018	6.2	6.0	6.4	5.0	6.4	5.0
2019	6.3	5.5	9.5	5.0	9.2	5.0
2020	5.3	5.1	6.0	5.1	6.0	5.1
2025	6.0	5.1	5.9	5.1	5.9	5.1
2030	5.9	5.1	5.8	5.1	5.8	5.1
2035	5.9	5.2	5.8	5.2	5.8	5.2
2040	5.8	5.2	5.7	5.2	5.7	5.2
2050	5.4	5.8	5.3	5.0	5.3	5.0
2060	5.2	5.5	5.1	5.2	5.2	5.2
2070	4.6	4.7	4.6	4.6	4.6	4.9
Ultimate <sup>1</sup>	4.2	4.3	4.2	4.5	4.2	4.5

<sup>1</sup> Ultimate rate used for years prior to 2016 for Entry Age purposes.

**Participation** — The table below summarizes the census data provided by each Agency utilized in the preparation of the actuarial valuation. The table shows the number of active and retired employees by Agency and provides a breakdown of the coverage elected and benefits offered to current retirees.

### OPEB Participation By Agency at January 1, 2016 (Valuation date for December 31, 2017)

	MTA New York City Transit	MTA Long Island Rail Road	MTA Metro- North Rail Road	MTA Bridges & Tunnels	MTAHQ	MTA Long Island Bus *	MTA Staten Island Railway	MTA Bus	Total
<u>Active Members</u>									
Number	49,174	7,141	6,506	1,475	1,720	-	297	3,757	70,070
Average Age	49.3	44.5	45.1	47.2	46.3	-	44.4	47.4	48.2
Average Service	13.8	12.2	12.7	14.1	12.9	-	11.9	11.7	13.4
<u>Retirees</u>									
Single Medical Coverage	12,818	662	452	622	193	88	27	616	15,478
Employee/Spouse Coverage	17,427	2,065	1,050	716	371	198	60	939	22,826
Employee/Child Coverage	1,085	107	77	45	29	21	4	47	1,415
No medical Coverage	<u>817</u>	<u>2,387</u>	<u>2,486</u>	<u>7</u>	<u>11</u>	<u>317</u>	<u>24</u>	<u>296</u>	<u>6,345</u>
Total Number	<u>32,147</u>	<u>5,221</u>	<u>4,065</u>	<u>1,390</u>	<u>604</u>	<u>624</u>	<u>115</u>	<u>1,898</u>	<u>46,064</u>
Average Age	72.0	68.5	74.5	69.7	65.9	66.1	64.8	70.6	71.5
Total Number with Dental/Vision	7,018	846	534	435	529	58	47	110	9,577
Total Number with Vision	27,843	846	534	435	529	58	93	1,562	31,900
Total Number with Supplement	26,448	1,957	-	955	-	462	22	1,454	31,298
Average Monthly Supplement Amount in whole dollars (Excluding Part B Premium)	\$32	\$229	\$ -	\$211	\$ -	\$ -	\$238	\$25	\$50
Total Number with Life Insurance	7,163	4,751	2,536	380	519	509	92	232	16,182
Average Life Insurance Amount	\$2,693	\$23,515	\$2,722	\$5,605	\$5,000	\$9,715	\$2,978	\$5,409	\$9,215

\* No active members as of January 1, 2016. In addition, there are 155 vestees not included in these counts.

**Coverage Election Rates** — The majority of members participating in NYSHIP are assumed to elect coverage in the Empire PPO plan. For certain agencies (MTA New York City Transit, MTA Bridges

and Tunnels, and MTA Staten Island Railway) a percentage of the membership is assumed to elect the NYSHIP HIP plan and for MTA Metro-North Railroad, a percentage is assumed to elect ConnectiCare.

**Dependent Coverage** — Spouses are assumed to be the same age as the employee/retiree. 80% of male and 45% of female eligible members participating in NYSHIP are assumed to elect family coverage upon retirement and 65% of male and 35% of female eligible members participating in self-insured programs administered by MTA New York City Transit are assumed to cover a dependent. Actual coverage elections for current retirees are used. If a current retiree’s only dependent is a child, eligibility is assumed for an additional 7 years from the valuation date.

**Demographic Assumptions:**

*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.

**Vestee Coverage** — For members that participate in NYSHIP, Vesteers (members who have terminated, but not yet eligible to retire) are eligible for NYSHIP benefits provided by the Agency upon retirement, but must maintain NYSHIP coverage at their own expense from termination to retirement. Vesteers are assumed to retire at first eligibility and would continue to maintain NYSHIP coverage based on the following percentages. This assumption is based on the Development of Recommended Actuarial Assumptions for New York State/SUNY GASB 45 Valuation report provided to Participating Employers of NYSHIP. These percentages were also applied to current vesteers based on age at the valuation date.

<u>Age at Termination</u>	<u>Percent Electing</u>
< 40	0 %
40–43	5
44	20
45–46	30
47–48	40
49	50
50–51	80
52+	100

The following table shows the elements of the MTA’s annual OPEB cost for the year, the amount actually paid, and changes in the MTA’s net OPEB obligation to the plan for the years ended December 31, 2017 and 2016. The portion of this actuarial present value allocated to a valuation year is called the Normal Cost. Calculations are based on the types of benefits provided under the terms of the substantive plan at

the time of each valuation and on the pattern of sharing costs between the employer and plan members to that point. Calculations reflect a long-term perspective.

<b>(In millions)</b>	<b>December 31, 2017</b>	<b>December 31, 2016</b>
Annual required contribution (“ARC”)	\$ 2,985.1	\$ 2,907.3
Interest on net OPEB obligation	500.1	474.6
Adjustment to ARC	<u>(1,329.8)</u>	<u>(1,235.5)</u>
OPEB cost	2,155.4	2,146.4
Payments made	<u>(579.9)</u>	<u>(551.0)</u>
Increase in net OPEB obligation	1,575.5	1,595.4
Net OPEB obligation — beginning of year	<u>15,155.5</u>	<u>13,560.1</u>
Net OPEB obligation — end of year	<u>\$ 16,731.0</u>	<u>\$ 15,155.5</u>

The MTA’s annual OPEB cost, the percentage of annual OPEB cost contributed to, and the net OPEB obligation for the year ended December 31, 2017, 2016 and 2015 are as follows (in millions):

<b>Year Ended</b>	<b>Annual OPEB Cost</b>	<b>% of Annual Cost Contributed</b>	<b>Net OPEB Obligation</b>
December 31, 2017	\$ 2,155.4	26.9 %	\$ 16,731.0
December 31, 2016	2,146.4	25.7	15,155.5
December 31, 2015	1,997.2	25.2	13,560.1

The MTA’s funded status of the Plan is as follows (in millions):

<b>Year Ended</b>	<b>Valuation Date</b>	<b>Actuarial Value of Assets {a}</b>	<b>Actuarial Accrued Liability (AAL)* {b}</b>	<b>Unfunded Actuarial Accrued Liability (UAAL) {c}={b}-{a}</b>	<b>Funded Ratio {a}/{b}</b>	<b>Covered Payroll {d}</b>	<b>Ratio of UAAL to Covered Payroll {c}/{d}</b>
December 31, 2017	January 1, 2016	\$ 297.5	\$ 19,801.7	\$ 19,504.2	1.5%	\$ 5,041.0	386.9 %

\* Based on Entry Age Normal

The required schedule of funding progress for the MTA Postemployment Benefit Plan immediately following the notes to the financial statements presents multiyear trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

## 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 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. Capital assets consist of the following at December 31, 2015, 2016, and 2017 (in millions):

	Balance December 31, 2015	Additions / Reclassifications	Deletions / Reclassifications	Balance December 31, 2016	Additions / Reclassifications	Deletions / Reclassification	Balance December 31, 2017
Capital assets not being depreciated:							
Land	\$ 208	\$ 2	\$ 7	\$ 203	\$ 14	\$ -	\$ 217
Construction work-in-progress	12,949	5,915	2,608	16,256	6,491	5,769	16,978
Total capital assets not being depreciated	13,157	5,917	2,615	16,459	6,505	5,769	17,195
Capital assets being depreciated:							
Buildings and structures	17,104	354	-	17,458	751	493	17,716
Bridges and tunnels	3,195	121	-	3,316	288	-	3,604
Equipment:							
Passenger cars and locomotives	13,764	102	3	13,863	1	4	13,860
Buses	3,229	217	-	3,446	213	46	3,613
Infrastructure	21,423	661	6	22,078	1,783	27	23,834
Other	19,356	773	7	20,122	2,602	18	22,706
Total capital assets being depreciated	78,071	2,228	16	80,283	5,638	588	85,333
Less accumulated depreciation:							
Buildings and structures	6,194	489	-	6,683	530	290	6,923
Bridges and tunnels	717	29	-	746	37	-	783
Equipment:							
Passenger cars and locomotives	6,427	415	3	6,839	371	4	7,206
Buses	1,782	223	-	2,005	250	39	2,216
Infrastructure	8,031	607	3	8,635	672	21	9,286
Other	6,667	684	35	7,316	751	13	8,054
Total accumulated depreciation	29,818	2,447	41	32,224	2,611	367	34,468
Total capital assets being depreciated — net	48,253	(219)	(25)	48,059	3,027	221	50,865
Capital assets — net	\$ 61,410	\$ 5,698	\$ 2,590	\$ 64,518	\$ 9,532	\$ 5,990	\$ 68,060

Interest capitalized in conjunction with the construction of capital assets for the years ended December 31, 2017 and 2016 was \$58.9 and \$57.9, 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, 2017 and 2016, these securities, which are not included in these financial statements, totaled \$114.8 and \$100.5, respectively, and had a market value of \$83.7 and \$95.4, respectively.

## 7. LONG-TERM DEBT

(In millions)	Original Issuance	December 31, 2016	Issued	Retired	December 31, 2017
<b>MTA:</b>					
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
	<u>53,727</u>	<u>27,311</u>	<u>7,000</u>	<u>6,328</u>	<u>27,983</u>
Net unamortized bond premium	-	1,345	740	507	1,578
	<u><b>53,727</b></u>	<u><b>28,656</b></u>	<u><b>7,740</b></u>	<u><b>6,835</b></u>	<u><b>29,561</b></u>
<b>TBTA:</b>					
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
	<u>20,091</u>	<u>8,337</u>	<u>2,548</u>	<u>2,116</u>	<u>8,769</u>
Net unamortized bond premium	-	735	399	553	581
	<u><b>20,091</b></u>	<u><b>9,072</b></u>	<u><b>2,947</b></u>	<u><b>2,669</b></u>	<u><b>9,350</b></u>
<b>MTA Hudson Rail Yards Trust:</b>					
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
	<u><b>1,057</b></u>	<u><b>1,194</b></u>	<u><b>-</b></u>	<u><b>7</b></u>	<u><b>1,187</b></u>
Total	<u><b>\$ 74,875</b></u>	<u><b>\$ 38,922</b></u>	<u><b>\$ 10,687</b></u>	<u><b>\$ 9,511</b></u>	<u><b>\$ 40,098</b></u>
Current portion		<u>\$ 1,977</u>			<u>\$ 1,806</u>
Long-term portion		<u>\$ 36,945</u>			<u>\$ 38,292</u>

(In millions)	Original Issuance	December 31, 2015	Issued	Retired	December 31, 2016
<b>MTA:</b>					
Transportation Revenue Bonds					
1.37%–6.68% due through 2056	\$ 31,886	\$ 20,728	\$ 3,113	\$ 2,632	\$ 21,209
Bond Anticipation Notes					
2.0% due through 2018	3,400	1,700	1,400	2,152	948
State Service Contract Bonds					
4.125%–5.70% due through 2031	2,395	218	-	73	145
Dedicated Tax Fund Bonds					
2.05%–5.00% due through 2040	10,046	4,857	1,168	1,016	5,009
Certificates of Participation					
5.30%–5.625% due through 2030	807	71	-	71	-
	<u>48,534</u>	<u>27,574</u>	<u>5,681</u>	<u>5,944</u>	<u>27,311</u>
Net unamortized bond discount and premium	-	564	808	27	1,345
	<u><b>48,534</b></u>	<u><b>28,138</b></u>	<u><b>6,489</b></u>	<u><b>5,971</b></u>	<u><b>28,656</b></u>
<b>TBTA:</b>					
General Revenue Bonds					
1.83%–5.85% due through 2050	13,585	6,750	541	474	6,817
Subordinate Revenue Bonds					
2.39%–5.34% due through 2032	3,958	1,584	-	64	1,520
	<u>17,543</u>	<u>8,334</u>	<u>541</u>	<u>538</u>	<u>8,337</u>
Net unamortized bond premium	-	656	48	(31)	735
	<u><b>17,543</b></u>	<u><b>8,990</b></u>	<u><b>589</b></u>	<u><b>507</b></u>	<u><b>9,072</b></u>
<b>MTA Hudson Rail Yards Trust:</b>					
MTA Hudson Rail Yards Trust Obligations					
1.88%–2.65% due through 2056	1,057	-	1,057	-	1,057
Net unamortized bond premium	-	-	132	(5)	137
	<u><b>1,057</b></u>	<u><b>-</b></u>	<u><b>1,189</b></u>	<u><b>(5)</b></u>	<u><b>1,194</b></u>
Total	<u><b>\$ 67,134</b></u>	<u><b>\$ 37,128</b></u>	<u><b>\$ 8,267</b></u>	<u><b>\$ 6,473</b></u>	<u><b>\$ 38,922</b></u>
Current portion		<u>\$ 2,587</u>			<u>\$ 1,977</u>
Long-term portion		<u>\$ 34,541</u>			<u>\$ 36,945</u>

**MTA Transportation Revenue Bonds** — Prior to 2017, MTA issued sixty 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 \$31,230. 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 March 9, 2017, MTA issued \$326 MTA Transportation Revenue Green Bonds, Series 2017A. The Series 2017A bonds were issued as \$189 MTA Transportation Revenue Green Bonds, Subseries 2017A-1 and \$136 MTA Transportation Revenue Green Bonds, Subseries 2017A-2. Proceeds from the transaction were used for bond refundings. The Subseries 2017A-1 bonds were issued as tax-exempt fixed rate bonds with a final maturity of November 15, 2057. The Subseries 2017A-2 bonds were issued as tax-exempt fixed-rate bonds with a final maturity of November 15, 2030.

On March 28, 2017, MTA effectuated a mandatory tender and remarketed \$100 MTA Transportation Revenue Variable Rate Refunding Bonds, Subseries 2002D-2a because its current interest rate period was set to expire by its terms.

On June 7, 2017, Fitch Ratings issued a press release announcing an upgrade of MTA Transportation Revenue Bonds to 'AA-' from 'A,' with a stable outlook.

On September 28, 2017, MTA issued \$662 MTA Transportation Revenue Refunding Green Bonds, Series 2017B to refinance certain outstanding indebtedness. The proceeds from the Series 2017B bonds were used for bond refundings. The Series 2017B bonds were issued as tax-exempt fixed rate bonds with a final maturity of November 15, 2028.

On October 20, 2017, MTA effectuated a mandatory tender for the purchase and remarketing of \$99 Transportation Revenue Variable Rate Bonds, Series 2011B, and \$73 Transportation Revenue Variable Rate Refunding Bonds, Subseries 2012G-4, because its current interest period expired by its terms. The Series 2011B and Subseries 2012G-4 Bonds will remain in Term Rate Mode as Floating Rate Tender Notes with a purchase date of November 1, 2022.

On November 3, 2017, MTA effectuated a mandatory tender and remarketed \$165 of MTA Transportation Revenue Variable Rate Refunding Bonds, Subseries 2014D-2 because its current interest rate period expired by its terms. The Subseries 2014D-2 Bonds will remain in Term Rate Mode as Floating Rate Tender Notes with a purchase date of November 15, 2022.

On December 13, 2017, MTA effectuated a mandatory tender and remarketed \$71 of MTA Transportation Revenue Variable Rate Refunding Bonds, Subseries 2005E-2 because the irrevocable direct-pay letter of credit (“LOC”) issued by Royal Bank of Canada, acting through its New York branch, was substituted with an irrevocable direct-pay LOC issued by Bank of America, N.A. The LOC from Bank of America, N.A. expires on December 10, 2021.

On December 14, 2017, MTA issued \$2,021 MTA Transportation Revenue Refunding Green Bonds, Series 2017C. The Series 2017C bonds were issued as \$1,821 Transportation Revenue Refunding Green Bonds, Subseries 2017C-1 and \$200 Transportation Revenue Refunding Green Bonds, Subseries 2017C-2. Proceeds from the transaction were used for bond refundings. The Series 2017C-1 bonds were issued as tax-exempt fixed rate Current Interest Bonds with a final maturity of November 15, 2038. The Series 2017C-2 bonds were issued as tax-exempt Capital Appreciation Bonds with a final maturity of November 15, 2040.

On December 21, 2017, MTA issued \$643 MTA Transportation Revenue Refunding Bonds, Series 2017D. The Series 2017D bonds were issued as tax-exempt fixed rate bonds with a final maturity of November 15, 2039. Proceeds from the transaction were used for bond refundings.

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

On February 14, 2017, MTA issued \$700 of MTA Transportation Revenue Bond Anticipation Notes, Series 2017A to generate new money proceeds to finance existing approved transit and commuter projects. The Series 2017A Notes were issued as fixed rate tax-exempt notes with a final maturity of October 2, 2017. On June 7, 2017, Fitch Ratings also upgraded the outstanding MTA Transportation Revenue BANs to ‘F1+’ from ‘F1’.

On June 29, 2017, MTA issued \$500 of MTA Transportation Revenue Bond Anticipation Notes, Series 2017B to generate new money proceeds to finance existing approved transit and commuter projects. The Series 2017B Notes were issued as fixed rate tax-exempt notes with a maturity date of February 1, 2018.

On October 25, 2017, MTA issued \$1,000 MTA Transportation Revenue Bond Anticipation Notes, Series 2017C to finance existing approved transit and commuter projects. The Series 2017C Notes were issued as \$500 Subseries 2017C-1 and \$500 Subseries 2017C-2. The Subseries 2017C-1 notes are fixed rate tax-exempt notes with a final maturity of February 15, 2019. The Subseries 2017C-2 notes are fixed rate tax-exempt notes with a final maturity of May 15, 2019.

**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 2017, 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, the outstanding bonds are \$68. 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 2017, MTA issued twenty 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 \$9,147. The Dedicated Tax Fund Bonds are MTA’s special obligations payable solely from monies held in the Pledged Amounts Account of the MTA Dedicated Tax Fund. State law requires that the MTTF revenues and MMTOA revenues (described above in Note 2 under “Nonoperating Revenues”) be deposited, subject to appropriation by the State Legislature, into the MTA Dedicated Tax Fund.

On February 23, 2017, MTA issued \$312.825 of MTA Dedicated Tax Fund Green Bonds, Series 2017A to retire \$350 MTA Dedicated Tax Fund Bond Anticipation Notes, Series 2016A-1. The Series 2017A bonds were issued as fixed rate tax-exempt bonds with a final maturity of November 15, 2047.

On May 17, 2017, MTA issued \$680 of MTA Dedicated Tax Fund Green Bonds, Series 2017B. The Series 2017B bonds were issued as \$309 MTA DTF Green Bonds, Series 2017B-1 and \$371 MTA DTF Refunding Green Bonds, Series 2017B-2. Proceeds from the transaction were used for bond refundings. The Series 2017B-1 bonds were issued as tax-exempt fixed rate bonds with a final maturity of November 15, 2057. The Series 2017B-2 bonds were issued as tax-exempt fixed-rate bonds with a final maturity of November 15, 2034.

On May 25, 2017, MTA effectuated a mandatory tender and remarketed \$83 of MTA Dedicated Tax Fund Bonds, Subseries 2008A-2a because its current interest rate period was set to expire by its terms.

On June 14, 2017, MTA effectuated a mandatory tender and remarketed \$167 of MTA Dedicated Tax Fund Variable Rate Refunding Bonds, Subseries 2008A-1 due to substituting the irrevocable direct-pay letter of credit issued by Royal Bank of Canada, acting through its New York branch, with an irrevocable direct-pay letter of credit issued by TD Bank, N.A.

**MTA Certificates of Participation** — Prior to 2017, 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 2017, MTA Bridges and Tunnels issued twenty-seven 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 \$11,922. 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 12, 2017, MTA issued \$300 Triborough Bridge and Tunnel Authority General Revenue Bonds, Series 2017A and \$903 Triborough Bridge and Tunnel Authority General Revenue Refunding Bonds, Series 2017B. The proceeds from the Series 2017A bonds will be used to finance bridge and tunnel projects. The proceeds from the Series 2017B bonds were used for bond refundings. The Series 2017A and Series 2017B bonds were issued as tax-exempt fixed rate bonds with a final maturity of November 15, 2047.

On October 6, 2017, MTA issued \$400 Triborough Bridge and Tunnel Authority General Revenue Bond Anticipation Notes, Series 2017A to finance bridge and tunnel capital projects. The Series 2017A Notes were issued as fixed rate tax-exempt notes with a final maturity of February 15, 2018.

On November 17, 2017, MTA issued \$721 Triborough Bridge and Tunnel Authority General Revenue Bonds, Series 2017C. The Series 2017C bonds were issued as \$521 Triborough Bridge and Tunnel Authority General Revenue Refunding Bonds, Subseries 2017C-1 and \$200 Triborough Bridge and Tunnel Authority General Revenue Bonds, Subseries 2017C-2. Proceeds from the transaction were used for bond refundings. The Series 2017C-1 bonds were issued as tax-exempt fixed rate bonds with a final maturity of November 15, 2028. The Series 2017C-2 bonds were issued as tax-exempt fixed rate bonds with a final maturity of November 15, 2042.

**MTA Bridges and Tunnels Subordinate Revenue Bonds** — Prior to 2017, MTA Bridges and Tunnels issued twelve Series of Subordinate Revenue Bonds secured under its 2001 Subordinate Revenue Resolution Authorizing Subordinate Revenue Obligations adopted on March 26, 2002, in the aggregate principal amount of \$3,871. The Subordinate Revenue Bonds are MTA Bridges and Tunnels' special obligations payable generally from the net revenues collected on the bridges and tunnels operated by MTA Bridges and Tunnels after the payment of debt service on the MTA Bridges and Tunnels General Revenue Bonds described in the preceding paragraph.

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

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

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

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

Refer to Note 8 for further information on Leases.

**Debt Limitation** — The New York State Legislature has imposed limitations on the aggregate amount of debt that the MTA and MTA Bridges and Tunnels can issue to fund the approved transit and commuter capital programs. The current aggregate ceiling, subject to certain exclusions, is \$55,497 compared with issuances totaling approximately \$33,948. 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, 2017 and 2016, 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,	
	2017	2016
MTA Transit and Commuter Facilities:		
Transit Facilities Revenue Bonds	\$ 189	\$ 208
Commuter Facilities Revenue Bonds	193	214
Transit and Commuter Facilities Service Contract Bonds	28	65
Dedicated Tax Fund Bonds	61	80
MTA New York City Transit — Transit Facilities Revenue Bonds (Livingston Plaza Project)		
	8	15
MTA Bridges and Tunnels:		
General Purpose Revenue Bonds	694	735
Special Obligation Subordinate Bonds	115	128
Mortgage Recording Tax Bonds	-	14
<b>Total</b>	<b>\$ 1,288</b>	<b>\$ 1,459</b>

For the year ended December 31, 2017, MTA refunding transactions decreased aggregate debt service payments by \$647 and provided an economic gain of \$534. For the year ended December 31, 2016, MTA refunding transactions decreased aggregate debt service payments by \$738 and provided an economic gain of \$561. Details of bond refunding savings for 2017 and 2016 are as follows:

Bonds Refunded in 2017 (In millions)		Par value Refunded	Debt Service Savings	Net Present Value of Savings	
Series	Date issued				
<b>Transportation Revenue Bonds</b>					
TRB 2017A-2	03/16/2017	\$ 137	\$ 22	\$ 16	
TRB 2017B	09/20/2017	662	91	80	
TRB 2017C	12/14/2017	2,021	170	156	
TRB 2017D	12/21/2017	643	56	51	
<b>Total Transportation Revenue Bonds</b>		<b>3,463</b>	<b>339</b>	<b>303</b>	
<b>Dedicated Tax Fund Bonds</b>	DTF 2017B-2	05/17/2017	371	47	36
<b>MTA Bridges and Tunnels General Revenue Bonds</b>					
TBTA 2017B	01/19/2017	903	199	139	
TBTA 2017C-1	11/17/2017	521	62	56	
<b>Total MTA Bridges and Tunnels General Revenue Bonds</b>		<b>1,424</b>	<b>261</b>	<b>195</b>	
<b>Total Bond Refunding Savings</b>		<b>\$ 5,258</b>	<b>\$ 647</b>	<b>\$ 534</b>	

<b>Bonds Refunded in 2016</b> (In millions)		<b>Par value Refunded</b>	<b>Debt Service Savings</b>	<b>Net Present Value of Savings</b>
<b>Series</b>	<b>Date issued</b>			
<b>Transportation Revenue Bonds</b>	TRB 2016A	\$ 782	\$ 82	\$ 68
	TRB 2016B	674	175	138
	TRB 2016C	864	82	65
	TRB 2016D	646	160	113
<b>Total Transportation Revenue Bonds</b>		<u>2,966</u>	<u>499</u>	<u>384</u>
<b>Dedicated Tax Fund Bonds</b>	DTF 2016A	580	137	103
	DTF 2016B	588	53	39
<b>Total Dedicated Tax Fund Bonds</b>		<u>1,168</u>	<u>190</u>	<u>142</u>
<b>MTA Bridges and Tunnels General Revenue Bonds</b>	TBTA 2016A	541	49	35
<b>Total Bond Refundings</b>		<u>\$ 4,675</u>	<u>\$ 738</u>	<u>\$ 561</u>

For the years ended December 31, 2017 and 2016, the accounting loss on bond refundings totaled \$359 and \$451, respectively.

Unamortized losses related to bond refundings were as follows:

<b>(In millions)</b>	<b>Net</b>		<b>December 31, 2016</b>	<b>(Gain)/Loss on Refunding</b>	<b>Current Year Amortization</b>	<b>December 31, 2017</b>
	<b>December 31, 2015</b>	<b>increase/ (decrease)</b>				
<b>MTA:</b>						
Transportation Revenue Bonds	\$ 335	\$ 222	\$ 557	\$ 222	\$ (51)	\$ 728
State Service Contract Bonds	(5)	(2)	(7)	-	(3)	(10)
Dedicated Tax Fund Bonds	101	114	215	55	(16)	254
	<u>431</u>	<u>334</u>	<u>765</u>	<u>277</u>	<u>(70)</u>	<u>972</u>
<b>TBTA:</b>						
General Revenue Bonds	161	10	171	82	(20)	233
Subordinate Revenue Bonds	34	(2)	32	-	(2)	30
	<u>195</u>	<u>8</u>	<u>203</u>	<u>82</u>	<u>(22)</u>	<u>263</u>
<b>Total</b>	<u>\$ 626</u>	<u>\$ 342</u>	<u>\$ 968</u>	<u>\$ 359</u>	<u>\$ (92)</u>	<u>\$ 1,235</u>

**Debt Service Payments** — Future principal and interest debt service payments at December 31, 2017 are as follows (in millions):

	<b>MTA</b>		<b>MTA BRIDGES AND TUNNELS</b>		<b>Debt Service</b>	
	<b>Principal</b>	<b>Interest</b>	<b>Principal</b>	<b>Interest</b>	<b>Principal</b>	<b>Interest</b>
2018	\$ 1,316	\$ 1,510	\$ 490	\$ 378	\$ 1,806	\$ 1,888
2019	1,736	1,480	330	363	2,066	1,843
2020	720	1,371	335	348	1,055	1,719
2021	754	1,257	341	333	1,095	1,590
2022	811	1,188	356	317	1,167	1,505
2023-2027	5,092	4,605	2,063	1,318	7,155	5,923
2028-2032	6,388	3,153	2,606	804	8,994	3,957
2033-2037	5,611	2,082	1,140	454	6,751	2,536
2038-2042	4,084	1,049	824	176	4,908	1,225
2043-2047	1,048	317	258	44	1,306	361
2048-2052	479	160	26	2	505	162
2053-2057	319	45	-	-	319	45
Thereafter	682	-	-	-	682	-
	<u>\$ 29,040</u>	<u>\$ 18,217</u>	<u>\$ 8,769</u>	<u>\$ 4,537</u>	<u>\$ 37,809</u>	<u>\$ 22,754</u>

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 2001B and Series 2001C* — 4.00% per annum.
- *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.

**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, 2017 are as follows (in millions):

**Loans Payable (in millions)**

<b>Year</b>	<b>Principal</b>	<b>Interest</b>	<b>Total</b>
2018	\$ 14	\$ 2	\$ 16
2019	14	1	15
2020	13	1	14
2021	12	1	13
2022	11	1	12
2023-2027	35	2	37
2028-2032	13	-	13
2033-2036	2	-	2
<b>Total</b>	<b>\$ 114</b>	<b>\$ 8</b>	<b>\$ 122</b>
Current portion	\$ 14		
Long-term portion	100		
Total NYPA Loans Payable	<b>\$ 114</b>		

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, 2017 and 2016.

**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.

<b>Resolution</b>	<b>Series</b>	<b>Swap</b>	<b>Provider (Insurer)</b>	<b>Type of Facility</b>	<b>Exp. Date</b>
Transportation Revenue	2005D-1	Y	Helaba	LOC	11/7/2018
Transportation Revenue	2005D-2	Y	Helaba	LOC	11/10/2022
Transportation Revenue	2005E-1	Y	Bank of Montreal	LOC	8/24/2018
Transportation Revenue	2005E-2	Y	Bank of America, N.A.	LOC	12/10/2021
Transportation Revenue	2005E-3	Y	Bank of Montreal	LOC	8/24/2018
Dedicated Tax Fund	2002B-1	N	Bank of Tokyo Mitsubishi	LOC	3/22/2021
Dedicated Tax Fund	2008A-1	Y	TD Bank, N.A.	LOC	6/13/2022
MTA Bridges and Tunnels General Revenue	2001B	N	State Street	LOC	9/28/2018
MTA Bridges and Tunnels General Revenue	2001C	Y	Bank of Tokyo Mitsubishi	SBPA	8/17/2018
MTA Bridges and Tunnels General Revenue	2002F	Y	Helaba	SBPA	11/1/2018
MTA Bridges and Tunnels General Revenue	2003B-1	N	PNC Bank	LOC	1/26/2018
MTA Bridges and Tunnels General Revenue	2003B-3	N	Wells Fargo	LOC	1/26/2018
MTA Bridges and Tunnels General Revenue	2005A	Y	TD Bank	LOC	1/28/2020
MTA Bridges and Tunnels General Revenue	2005B-2	Y	Wells Fargo	LOC	1/26/2018
MTA Bridges and Tunnels General Revenue	2005B-3	Y	Bank of Tokyo Mitsubishi	LOC	6/29/2018
MTA Bridges and Tunnels Subordinate	2013D-2a	Y	Bank of America, N.A.	LOC	12/14/2018
MTA Bridges and Tunnels Subordinate	2013D-2b	Y	Bank of America, N.A.	LOC	12/14/2018

**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, 2017 and 2016, classified by type, and the changes in fair value of such derivative instruments from the year ended December 31, 2016 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, 2017	
						Notional Amount	Fair Value
<b>Cashflow Hedges</b>							
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						<u>\$ 2,342.535</u>	<u>\$ (411.725)</u>

**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, 2016	
						Notional Amount	Fair Value
<b>Cashflow Hedges</b>							
MTA Bridges and Tunnels Senior Revenue Bonds	2002F & 2003B-2 (Citi 2005B)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	192.200	(31.348)
MTA Bridges and Tunnels Senior Revenue Bonds	2005B-2,3,4	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	576.600	(94.044)
MTA Bridges and Tunnels Senior Revenue Bonds	2005A (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	23.230	(3.524)
MTA Bridges and Tunnels Senior Revenue Bonds	2005C (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/5/2016	70.500	(4.058)
MTA Bridges and Tunnels Subordinate Revenue Bonds	2000ABCD	Libor Fixed Payer	Cash Flow	Synthetic Instrument	8/12/1998	55.800	(3.920)
MTA Dedicated Tax Fund Bonds	2008A	Libor Fixed Payer	Cash Flow	Synthetic Instrument	3/8/2005	328.980	(51.300)
MTA Transportation Revenue Bonds	2002D-2	Libor Fixed Payer	Cash Flow	Synthetic Instrument	7/11/2002	200.000	(67.214)
MTA Transportation Revenue Bonds	2005D & 2005E	Libor Fixed Payer	Cash Flow	Synthetic Instrument	9/10/2004	394.980	(73.319)
MTA Transportation Revenue Bonds	2012G	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/12/2007	357.500	(83.394)
MTA Transportation Revenue Bonds	2002G-1 (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	155.815	(15.244)
MTA Transportation Revenue Bonds	2011B (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	46.555	(15.442)
Total						\$ 2,402.160	\$ (442.807)

	Changes In Fair Value		Fair Value at December 31, 2017		Notional (in millions)
	Classification	Amount (in millions)	Classification	Amount (in millions)	
<b>Government activities</b>					
Cash Flow hedges:					
Pay-fixed interest rate swaps	Deferred outflow of resources	\$ 31.082	Debt	\$ (411.725)	\$ 2,342.535

### 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, 2017).

Metropolitan Transportation Authority						
Related Bonds	Notional Amount as of 12/31/17	Effective Date	Maturity Date	Terms	Counterparty and Ratings (S&P / Moody's / Fitch)	Fair Value as of 12/31/17
TRB 2002D-2	\$200.000	01/01/07	11/01/32	Pay 4.45%; receive 69% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa3 / AA-)	\$ (65.547)
TRB 2005D & 2005E	285.525	11/02/05	11/01/35	Pay 3.561%; receive 67% 1M LIBOR	UBS AG (A+ / A1 / AA-)	(50.723)
TRB 2005E	95.175	11/02/05	11/01/35	Pay 3.561%; receive 67% 1M LIBOR	AIG Financial Products <sup>1</sup> (BBB+ / Baa1 / BBB+)	(16.908)
TRB 2012G	357.150	11/15/12	11/01/32	Pay 3.563%; receive 67% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa3 / AA-)	(81.075)
DTF 2008A	326.860	03/24/05	11/01/31	Pay 3.3156%; receive 67% 1M LIBOR	Bank of New York Mellon (AA- / Aa2 / AA)	(45.587)
<b>Total</b>	<b>\$1,264.710</b>					<b>\$ (259.840)</b>

<sup>1</sup>Guarantor: American International Group, Inc., parent of AIG Financial Products.

MTA Bridges and Tunnels						
Related Bonds	Notional Amount as of 12/31/17	Effective Date	Maturity Date	Terms	Counterparty and Ratings (S&P / Moody's / Fitch)	Fair Value as of 12/31/17
TBTA 2002F & 2003B-2	\$191.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	Citibank, N.A. (A+ / A1 / A+)	\$ (29.658)
TBTA 2005B-2	191.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa3 / AA-)	(29.658)
TBTA 2005B-3	191.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	BNP Paribas North America (A / Aa3 / A+)	(29.658)
TBTA 2005B-4	191.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	UBS AG (A+ / A1 / AA-)	(29.658)
TBTA 2000ABCD	34.150	01/01/01	01/01/19	Pay 6.08%; receive SIFMA – 15 bp <sup>1</sup>	JPMorgan Chase Bank, NA (A+ / Aa3 / AA-)	(1.450)
TRB 2002G-1 & 2011B, TBTA 2005A & 2001C <sup>2</sup>	139.238 <sup>3</sup>	04/01/16	01/01/30	Pay 3.52%; receive 67% 1M LIBOR	U.S. Bank N.A. (AA- / A1 / AA)	(15.902) <sup>3</sup>
TRB 2002G-1 & 2011B, TBTA 2005A & 2001C <sup>2</sup>	139.237 <sup>3</sup>	04/01/16	01/01/30	Pay 3.52%; receive 67% 1M LIBOR	Wells Fargo Bank, N.A. (AA- / Aa2 / AA-)	(15.901) <sup>3</sup>
<b>Total</b>	<b>\$1,077.825</b>					<b>\$ (151.885)</b>

<sup>1</sup>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.

<sup>2</sup>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.

<sup>3</sup>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, 2017, 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, 2017, 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+	Aa3	AA-	\$782,600	33.41%
UBS AG	A+	A1	AA-	476,825	20.36
The Bank of New York Mellon	AA-	Aa2	AA	326,860	13.95
Citibank, N.A.	A+	A1	A+	191,300	8.17
BNP Paribas North America, Inc.	A	Aa3	A+	191,300	8.17
U.S. Bank National Association	AA-	A1	AA	139,238	5.94
Wells Fargo Bank, N.A.	AA-	Aa2	AA-	139,237	5.94
AIG Financial Products Corp.	BBB+	Baa1	BBB+	95,175	4.06
<b>Total</b>				<b>\$2,342,535</b>	<b>100.00%</b>

*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.

<b>MTA Transportation Revenue</b>		
<b>Counterparty Name</b>	<b>MTA</b>	<b>Counterparty</b>
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.

<b>MTA Dedicated Tax Fund</b>		
<b>Counterparty Name</b>	<b>MTA</b>	<b>Counterparty</b>
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.

<b>MTA Bridges and Tunnels Senior Lien</b>		
<b>Counterparty Name</b>	<b>MTA Bridges and Tunnels</b>	<b>Counterparty</b>
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.

<b>MTA Bridges and Tunnels Subordinate Lien</b>		
<b>Counterparty Name</b>	<b>MTA Bridges and Tunnels</b>	<b>Counterparty</b>
JPMorgan Chase Bank, NA	Swap Insurer below A3 (Moody's) and A- (S&P); and MTA Bridges and Tunnels Senior Lien rating 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.	Below Baa2 (Moody's) or BBB (S&P)*	Below Baa2 (Moody's) or BBB (S&P)**

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

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

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

outstanding transactions and net the amounts so that a single sum will be owed by, or owed to, the non-defaulting party.

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

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

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

As of December 31, 2017, the aggregate mid-market valuation of the MTA's swaps subject to collateral posting agreements was (\$220.615); 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, 2017, the aggregate mid-market valuation of MTA Bridges and Tunnels' swaps subject to collateral posting agreements was (\$151.303); 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.*

<b>MTA Dedicated Tax Fund</b>		
<b>Counterparty</b>	<b>MTA Collateral Thresholds</b>	<b>Counterparty Collateral Thresholds (based on lowest rating)</b>
Bank of New York Mellon	N/A – MTA does not post collateral	Aa3/AA-: \$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.

<b>MTA Bridges and Tunnels Senior Lien</b>		
<b>Counterparty</b>	<b>MTA Bridges and Tunnels Collateral Thresholds (based on highest rating)</b>	<b>Counterparty Collateral Thresholds (based on highest rating)</b>
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.

<b>MTA Bridges and Tunnels Subordinate Lien</b>		
<b>Counterparty</b>	<b>MTA Bridges and Tunnels Collateral Thresholds (based on lowest rating)</b>	<b>Counterparty Collateral Thresholds (based on lowest rating)</b>
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-: \$15 million A1/A+ to A3/A-: \$5 million Baa1/BBB+ & below: Zero

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

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

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

<b>MTA</b> <b>(in millions)</b>				
Year Ended December 31, 2017	Variable-Rate Bonds		Net Swap Payments	Total
	Principal	Interest		
	35.8	50.1	(5.4)	80.6
2018	55.6	48.6	(5.2)	99.0
2019	38.4	46.5	(4.9)	80.0
2020	58.3	44.9	(4.7)	98.5
2021	63.3	42.6	(4.4)	101.4
2022	324.3	173.9	(17.2)	481.0
2023-2027	827.6	454.7	(8.3)	1,274.0
2028-2032	122.7	27.5	(1.6)	148.7
2033-2037	<b>MTA Bridges and Tunnels</b> <b>(in millions)</b>			
Year Ended December 31, 2017	Variable-Rate Bonds		Net Swap Payments	Total
	Principal	Interest		
	62.5	39.7	(6.6)	95.7
2018	43.4	38.0	(6.9)	74.5
2019	25.4	37.0	(6.9)	55.6
2020	26.6	36.0	(6.8)	55.8
2021	27.6	34.9	(6.8)	55.7
2022	180.4	152.5	(32.3)	300.5
2023-2027	681.8	68.5	(16.5)	733.8
2028-2032	12.4	2.5	-	14.9
2033-2037				

## 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, 2017, the market value of total collateral funds was \$37.2.

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, 2017, the market value of total collateral funds was \$52.5.

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

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

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

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

- a. The lease transfers ownership of the property to the lessee by the end of the lease term.
- b. The lease contains a bargain purchase option.
- c. The lease term is equal to 75 percent or more of the estimated economic life of the leased property.
- d. 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, 2017:

Year	ERY	WRY	Total
2018	9	14	23
2019	18	16	34
2020	19	16	35
2021	19	32	51
2022	19	33	52
Thereafter	887	1,558	2,445
Total	<b>\$ 971</b>	<b>\$ 1,669</b>	<b>\$ 2,640</b>

**Other Lease Transactions** — On July 29, 1998 the MTA, (solely on behalf of MTA Long Island Rail Road and MTA Metro-North Railroad, MTA New York City Transit, and MTA Bridges and Tunnels) entered into a lease and related agreements whereby each agency, as sublessee, will rent, an office building

at Two Broadway in lower Manhattan. The triple-net-lease has an initial stated term of approximately 50 years, with the right to extend the lease for two successive 15-year periods at a rental of at least 95% of fair market rent. Remaining payments under the lease approximate \$1.1 billion. Under the subleases, the lease is apportioned as follows: MTA New York City Transit, 68.7%, MTA, 21%; and MTA Bridges and Tunnels, 10.3%. However, the involved agencies have agreed to sub-lease space from one another as necessary to satisfy actual occupancy needs. The agencies will be responsible for obligations under the lease based on such actual occupancy percentages. Actual occupancy percentages at December 31, 2017, 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 57.8%, 7.5% and 34.7%, respectively. MTAs' sublease is for a year-to-year term, automatically extended, except upon the giving of a nonextension notice by MTA. The lease is comprised of both operating and capital elements, with the portion of the lease attributable to the land recorded as an operating lease, and the portion of the lease attributable to the building recorded as a capital lease. 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, 2017 and 2016, of \$228 and \$223, respectively. The MTA made rent payments of \$25 and \$25 for the years ended December 31, 2017 and 2016, 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 2017, the total of the rental payments charged to MTA New York City Transit and MTA Bridges and Tunnels was \$4,138 and \$1,900 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, 2017 and 2016, is as follows (in millions):

	<u>2017</u>	<u>2016</u>
Capital lease - building	\$ 196	\$ 196
Less accumulated amortization	<u>(88)</u>	<u>(85)</u>
Capital lease - building - net	<u>\$ 108</u>	<u>\$ 111</u>

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

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

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

Total rent expense under operating leases approximated \$68.1 and \$63.9 for the years ended December 31, 2017 and 2016, respectively.

At December 31, 2017, the future minimum lease payments under non-cancelable leases are as follows (in millions):

<b>Years</b>	<b><u>Operating</u></b>	<b><u>Capital</u></b>
2018	\$ 81	\$ 22
2019	72	25
2020	73	33
2021	71	24
2022	69	74
2023–2027	302	105
2028–2032	371	551
2033–2037	300	154
2038–2042	262	172
2043–2047	262	194
Thereafter	<u>425</u>	<u>215</u>
Future minimum lease payments	<u>\$ 2,288</u>	1,569
Amount representing interest		<u>(1,129)</u>
Total present value of capital lease obligations		440
Less current present value of capital lease obligations		<u>4</u>
Noncurrent present value of capital lease obligations		<u>\$ 436</u>

**Capital Leases Schedule**

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

<b>Description</b>	<b>December 31, 2016</b>	<b>Increase</b>	<b>Decrease</b>	<b>December 31, 2017</b>
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	<u>54</u>	<u>1</u>	<u>-</u>	<u>55</u>
<b>Total MTA Capital Lease</b>	<u>\$ 433</u>	<u>\$ 12</u>	<u>\$ 5</u>	<u>\$ 440</u>
Current Portion Obligations under Capital Lease	<u>4</u>			<u>4</u>
Long Term Portion Obligations under Capital Lease	<u>\$ 429</u>			<u>\$ 436</u>

**Capital Leases Schedule**  
**For the Year Ended December 31, 2016**  
(in millions)

Description	December 31, 2015	Increase	Decrease	December 31, 2016
Sumitomo	\$ 15	\$ -	\$ -	\$ 15
Met Life	5	-	-	5
Met Life Equity	19	-	-	19
Bank of New York	22	-	-	22
Bank of America	32	2	-	34
Bank of America Equity	16	-	-	16
Sumitomo	38	1	4	35
Met Life Equity	47	3	-	50
Grand Central Terminal & Harlem Hudson Railroad Lines	14	-	-	14
2 Broadway Lease Improvement	166	9	6	169
2 Broadway	53	1	-	54
Subway Cars	107	1	108	-
<b>Total MTA Capital Lease</b>	<b>\$ 534</b>	<b>\$ 17</b>	<b>\$ 118</b>	<b>\$ 433</b>
Current Portion Obligations under Capital Lease	9			4
Long Term Portion Obligations under Capital Lease	<u>\$ 525</u>			<u>\$ 429</u>

**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, 2017 and 2016 is presented below (in millions):

	<u>December 31, 2017</u>	<u>December 31, 2016</u>
Balance — beginning of year	\$ 3,441	\$ 2,883
Activity during the year:		
Current year claims and changes in estimates	832	1,448
Claims paid	<u>(422)</u>	<u>(890)</u>
Balance — end of year	3,851	3,441
Less current portion	<u>(415)</u>	<u>(415)</u>
Long-term liability	<u>\$ 3,436</u>	<u>\$ 3,026</u>

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

## 11. COMMITMENTS AND CONTINGENCIES

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

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

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

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

On July 21, 2017, New York State Urban Development Corporation d/b/a Empire State Development ("ESD") executed a TIFIA Loan Agreement with the United States Department of Transportation (the "TIFIA Lender") in an amount of up to \$526 (the "TIFIA Loan"), with a final maturity date of the earlier of (1) October 30, 2055 and (2) the last semi-annual payment date occurring no later than the date that is thirty-five (35) years following the date on which the Train Hall is substantially completed. The proceeds of the TIFIA Loan are being used to pay for costs of the construction of the Train Hall. The TIFIA Loan is secured by a mortgage on the Train Hall property. The principal and interest on the TIFIA Loan is payable from a pledged revenue stream that primarily consists of PILOT payments to be paid by certain

tenants in the Retail and Commercial Space. The amount of the PILOT payments is fixed through September, 2030 and is thereafter calculated based upon the assessed value of the properties as determined by 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 \$13 and \$12 for the years ended December 31, 2017 and 2016, respectively. A summary of the activity in pollution remediation liability at December 31, 2017 and 2016 were as follows:

	<b>December 31, 2017</b>	<b>December 31, 2016</b>
Balance at beginning of year	\$ 88	\$ 100
Current year expenses/changes in estimates	13	12
Current year payments	<u>(22)</u>	<u>(24)</u>
Balance at end of year	79	88
Less current portion	<u>20</u>	<u>23</u>
Long-term liability	<u>\$ 59</u>	<u>\$ 65</u>

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

## 13. CURRENT AND NON-CURRENT LIABILITIES

Changes in the activity of current and non-current liabilities for the years ended December 31, 2017 and 2016 are presented below:

	Balance December 31, 2015			Balance December 31, 2016			Balance December 31, 2017
	Additions	Reductions	Additions	Reductions	Additions	Reductions	
<b>Current liabilities:</b>							
Accounts payable	\$ 409	\$ 117	\$ -	\$ 526	\$ 81	\$ -	\$ 607
Interest	210	16	-	226	-	(22)	204
Salaries, wages and payroll taxes	256	-	(5)	251	56	-	307
Vacation and sick pay benefits	880	31	-	911	77	-	988
Current portion — retirement and death benefits	15	-	-	15	-	(1)	14
Capital accrual	479	-	(43)	436	-	(24)	412
Other accrued expenses	560	88	-	648	213	-	861
Unearned revenues	563	8	-	571	23	-	594
<b>Total current liabilities</b>	<u>\$ 3,372</u>	<u>\$ 260</u>	<u>\$ (48)</u>	<u>\$ 3,584</u>	<u>\$ 450</u>	<u>\$ (47)</u>	<u>\$ 3,987</u>
<b>Non-current liabilities:</b>							
Contract retainage payable	\$ 281	\$ 28	\$ -	\$ 309	\$ 67	\$ -	\$ 376
Other long-term liabilities	307	10	-	317	30	-	347
<b>Total non-current liabilities</b>	<u>\$ 588</u>	<u>\$ 38</u>	<u>\$ -</u>	<u>\$ 626</u>	<u>\$ 97</u>	<u>\$ -</u>	<u>\$ 723</u>

#### 14. FUEL HEDGE

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

Counterparty	J. Aron & Company	JPM - Ventures Energy Corp	Macquarie Energy LLC	Macquarie Energy LLC	Macquarie Energy LLC	J. Aron & Company	J. Aron & Company	Macquarie Energy LLC
Trade Date	1/27/2016	2/23/2016	3/29/2016	4/28/2016	5/26/2016	6/30/2016	7/28/2016	8/24/2016
Effective Date	1/1/2017	1/2/2017	1/3/2017	1/4/2017	1/5/2017	1/6/2017	1/7/2017	1/8/2017
Termination Date	12/31/2017	1/31/2018	2/28/2018	3/31/2018	4/30/2018	5/30/2018	6/30/2018	7/31/2018
Price/Gal	\$1.2760	\$1.3100	\$1.3820	\$1.5535	\$1.6225	\$1.6515	\$1.5020	\$1.6350
Original Notional Quantity	3,745,930	3,845,749	3,926,350	4,527,533	4,728,640	4,813,146	4,498,206	4,780,987
Counterparty	J. Aron & Company	Macquarie Energy LLC	J. Aron & Company	J. Aron & Company	JPM - Ventures Energy Corp	Cargill	J. Aron & Company	J. Aron & Company
Trade Date	9/22/2016	10/26/2016	11/22/2016	12/20/2016	1/26/2017	2/28/2017	3/28/2017	4/27/2017
Effective Date	1/9/2017	1/10/2017	1/11/2017	1/12/2017	1/1/2018	1/2/2018	1/3/2018	1/4/2018
Termination Date	8/31/2018	9/30/2018	10/31/2018	11/30/2018	12/31/2018	1/31/2019	2/28/2019	3/31/2019
Price/Gal	\$1.5975	\$1.6240	\$1.6670	\$1.7657	\$1.7485	\$1.6824	\$1.6090	\$1.5915
Original Notional Quantity	4,671,339	4,801,475	4,879,859	5,122,068	5,111,306	4,918,086	4,703,517	4,594,937
Counterparty	J. Aron & Company	J. Aron & Company	J. Aron & Company	J. Aron & Company	J. Aron & Company	J. Aron & Company	J. Aron & Company	J. Aron & Company
Trade Date	5/30/2017	6/27/2017	7/26/2017	8/29/2017	9/22/2017	10/26/2017	11/29/2017	12/27/2017
Effective Date	1/5/2018	1/6/2018	1/7/2018	1/8/2018	1/9/2018	1/10/2018	1/11/2018	1/12/2018
Termination Date	4/30/2019	5/31/2019	6/30/2019	7/31/2019	8/31/2019	9/30/2019	10/31/2019	11/30/2019
Price/Gal	\$1.6085	\$1.5225	\$1.6180	\$1.6315	\$1.7205	\$1.7635	\$1.8520	\$1.9050
Original Notional Quantity	4,687,603	4,436,967	4,715,260	4,754,602	5,013,957	4,607,170	5,316,279	5,468,443

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, 2017, the total outstanding notional value of the ULSD contracts was 53.4 million gallons with a positive fair market value of \$15.8. 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, 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	\$ 559	\$ (111)	\$ 7,514
Capital assets	9,809	4,828	6,102	41,316	6,005	-	68,060
Other Assets	11,074	5	-	1	(84)	(9,977)	1,019
Intercompany receivables	751	77	159	1,884	635	(3,506)	-
Deferred outflows of resources	1,748	248	340	1,018	502	(169)	3,687
<b>Total assets and deferred outflows of resources</b>	<b>\$ 29,399</b>	<b>\$ 5,385</b>	<b>\$ 6,837</b>	<b>\$ 44,805</b>	<b>\$ 7,617</b>	<b>\$ (13,763)</b>	<b>\$ 80,280</b>
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)	68,304
Intercompany payables	2,885	53	34	-	506	(3,477)	-
Deferred inflows of resources	51	21	22	391	21	-	506
<b>Total liabilities and deferred inflows of resources</b>	<b>\$ 39,422</b>	<b>\$ 1,547</b>	<b>\$ 2,591</b>	<b>\$ 23,657</b>	<b>\$ 11,659</b>	<b>\$ (3,820)</b>	<b>\$ 75,056</b>
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)
<b>Total net position</b>	<b>\$ (10,023)</b>	<b>\$ 3,838</b>	<b>\$ 4,246</b>	<b>\$ 21,148</b>	<b>\$ (4,042)</b>	<b>\$ (9,943)</b>	<b>\$ 5,224</b>
<b>For the year ended December 31, 2017</b>							
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
<b>Total operating revenue</b>	<b>302</b>	<b>791</b>	<b>781</b>	<b>4,912</b>	<b>1,932</b>	<b>(45)</b>	<b>8,673</b>
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
<b>Total operating expenses</b>	<b>1,869</b>	<b>1,624</b>	<b>1,913</b>	<b>10,703</b>	<b>783</b>	<b>(42)</b>	<b>16,850</b>
<b>Operating (deficit) surplus</b>	<b>(1,567)</b>	<b>(833)</b>	<b>(1,132)</b>	<b>(5,791)</b>	<b>1,149</b>	<b>(3)</b>	<b>(8,177)</b>
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
<b>Total non-operating revenues (expenses)</b>	<b>1,396</b>	<b>516</b>	<b>1,504</b>	<b>3,644</b>	<b>(295)</b>	<b>(1,786)</b>	<b>4,979</b>
<b>Loss before appropriations</b>	<b>(171)</b>	<b>(317)</b>	<b>372</b>	<b>(2,147)</b>	<b>854</b>	<b>(1,789)</b>	<b>(3,198)</b>
<b>Appropriations, grants and other receipts externally restricted for capital projects</b>	<b>(443)</b>	<b>409</b>	<b>-</b>	<b>1,860</b>	<b>(572)</b>	<b>1,408</b>	<b>2,662</b>
<b>Change in net position</b>	<b>(614)</b>	<b>92</b>	<b>372</b>	<b>(287)</b>	<b>282</b>	<b>(381)</b>	<b>(536)</b>
<b>Net position, beginning of year</b>	<b>(9,409)</b>	<b>3,746</b>	<b>3,874</b>	<b>21,435</b>	<b>(4,477)</b>	<b>(9,562)</b>	<b>5,607</b>
<b>Cumulative effect of change in accounting principle</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>153</b>	<b>-</b>	<b>153</b>
<b>Net position, end of year</b>	<b>\$ (10,023)</b>	<b>\$ 3,838</b>	<b>\$ 4,246</b>	<b>\$ 21,148</b>	<b>\$ (4,042)</b>	<b>\$ (9,943)</b>	<b>\$ 5,224</b>
<b>For the year ended December 31, 2017</b>							
<b>Net cash (used in) / provided by operating activities</b>	<b>\$ (1,244)</b>	<b>\$ (466)</b>	<b>\$ (781)</b>	<b>\$ (2,835)</b>	<b>\$ 1,413</b>	<b>\$ 79</b>	<b>(3,834)</b>
<b>Net cash provided by / (used in) non-capital financing activities</b>	<b>5,898</b>	<b>536</b>	<b>798</b>	<b>3,732</b>	<b>(732)</b>	<b>(3,631)</b>	<b>6,601</b>
<b>Net cash (used in) / provided by capital and related financing activities</b>	<b>(5,031)</b>	<b>(69)</b>	<b>(24)</b>	<b>(908)</b>	<b>(604)</b>	<b>3,538</b>	<b>(3,098)</b>
<b>Net cash (used in) / provided by investing activities</b>	<b>51</b>	<b>-</b>	<b>-</b>	<b>6</b>	<b>(189)</b>	<b>14</b>	<b>(118)</b>
<b>Cash at beginning of year</b>	<b>525</b>	<b>14</b>	<b>12</b>	<b>61</b>	<b>120</b>	<b>-</b>	<b>732</b>
<b>Cash at end of year</b>	<b>\$ 199</b>	<b>\$ 15</b>	<b>\$ 5</b>	<b>\$ 56</b>	<b>\$ 8</b>	<b>\$ -</b>	<b>\$ 283</b>

December 31, 2016	MTA	Metro-North Railroad	Long Island Railroad	New York City Transit Authority	Triborough Bridge and Tunnel Authority	Eliminations	Consolidated Total
Current assets	\$ 7,269	\$ 221	\$ 220	\$ 593	\$ 424	\$ (432)	\$ 8,295
Capital assets	8,982	4,616	5,714	39,906	5,229	71	64,518
Other Assets	10,457	5	-	72	4	(9,565)	973
Intercompany receivables	382	70	89	2,124	470	(3,135)	-
Deferred outflows of resources	1,525	231	366	1,402	488	(180)	3,832
<b>Total assets and deferred outflows of resources</b>	<b>\$ 28,615</b>	<b>\$ 5,143</b>	<b>\$ 6,389</b>	<b>\$ 44,097</b>	<b>\$ 6,615</b>	<b>\$ (13,241)</b>	<b>\$ 77,618</b>
Current liabilities	\$ 3,406	\$ 271	\$ 246	\$ 1,710	\$ 812	\$ (442)	\$ 6,003
Non-current liabilities	31,821	1,047	2,207	20,741	10,011	(143)	65,684
Intercompany payables	2,741	54	39	-	259	(3,093)	-
Deferred inflows of resources	56	25	23	210	10	-	324
<b>Total liabilities and deferred inflows of resources</b>	<b>\$ 38,024</b>	<b>\$ 1,397</b>	<b>\$ 2,515</b>	<b>\$ 22,661</b>	<b>\$ 11,092</b>	<b>\$ (3,678)</b>	<b>\$ 72,011</b>
Net investment in capital assets	\$ (25,258)	\$ 4,602	\$ 5,714	\$ 39,809	\$ 911	\$ (22)	\$ 25,756
Restricted	1,383	-	-	-	511	(429)	1,465
Unrestricted	14,466	(856)	(1,840)	(18,373)	(5,899)	(9,112)	(21,614)
<b>Total net position</b>	<b>\$ (9,409)</b>	<b>\$ 3,746</b>	<b>\$ 3,874</b>	<b>\$ 21,436</b>	<b>\$ (4,477)</b>	<b>\$ (9,563)</b>	<b>\$ 5,607</b>
<b>For the year ended December 31, 2016</b>							
Fare revenue	\$ 219	\$ 690	\$ 712	\$ 4,415	\$ -	\$ -	\$ 6,036
Vehicle toll revenue	-	-	-	-	1,863	-	1,863
Rents, freight and other revenue	86	65	56	444	32	(62)	621
<b>Total operating revenue</b>	<b>305</b>	<b>755</b>	<b>768</b>	<b>4,859</b>	<b>1,895</b>	<b>(62)</b>	<b>8,520</b>
Total labor expenses	1,129	923	1,088	7,205	326	(6)	10,665
Total non-labor expenses	382	343	364	1,795	203	(49)	3,038
Depreciation	99	236	333	1,650	129	-	2,447
<b>Total operating expenses</b>	<b>1,610</b>	<b>1,502</b>	<b>1,785</b>	<b>10,650</b>	<b>658</b>	<b>(55)</b>	<b>16,150</b>
<b>Operating (deficit) surplus</b>	<b>(1,305)</b>	<b>(747)</b>	<b>(1,017)</b>	<b>(5,791)</b>	<b>1,237</b>	<b>(7)</b>	<b>(7,630)</b>
Subsidies and grants	359	125	-	317	8	280	1,089
Tax revenue	4,755	-	-	3,358	-	(2,616)	5,497
Interagency subsidy	743	355	568	308	-	(1,974)	-
Interest expense	(1,133)	-	-	(20)	(327)	17	(1,463)
Other	(1,664)	(1)	-	3	(37)	1,834	135
<b>Total non-operating revenues (expenses)</b>	<b>3,060</b>	<b>479</b>	<b>568</b>	<b>3,966</b>	<b>(356)</b>	<b>(2,459)</b>	<b>5,258</b>
<b>Loss before appropriations</b>	<b>1,755</b>	<b>(268)</b>	<b>(449)</b>	<b>(1,825)</b>	<b>881</b>	<b>(2,466)</b>	<b>(2,372)</b>
<b>Appropriations, grants and other receipts externally restricted for capital projects</b>	<b>(2,203)</b>	<b>315</b>	<b>494</b>	<b>1,919</b>	<b>(742)</b>	<b>2,385</b>	<b>2,168</b>
<b>Change in net position</b>	<b>(448)</b>	<b>47</b>	<b>45</b>	<b>94</b>	<b>139</b>	<b>(81)</b>	<b>(204)</b>
<b>Net position, beginning of year</b>	<b>(8,961)</b>	<b>3,699</b>	<b>3,829</b>	<b>21,342</b>	<b>(4,616)</b>	<b>(9,482)</b>	<b>5,811</b>
<b>Net position, end of year</b>	<b>\$ (9,409)</b>	<b>\$ 3,746</b>	<b>\$ 3,874</b>	<b>\$ 21,436</b>	<b>\$ (4,477)</b>	<b>\$ (9,563)</b>	<b>\$ 5,607</b>
<b>For the year ended December 31, 2016</b>							
<b>Net cash (used in) / provided by operating activities</b>	<b>\$ (1,240)</b>	<b>\$ (456)</b>	<b>\$ (547)</b>	<b>\$ (2,629)</b>	<b>\$ 1,441</b>	<b>\$ -</b>	<b>(3,431)</b>
<b>Net cash provided by / (used in) non-capital financing activities</b>	<b>6,162</b>	<b>473</b>	<b>568</b>	<b>4,011</b>	<b>(742)</b>	<b>(3,876)</b>	<b>6,596</b>
<b>Net cash (used in) / provided by capital and related financing activities</b>	<b>(4,530)</b>	<b>(18)</b>	<b>(14)</b>	<b>(1,596)</b>	<b>(786)</b>	<b>3,916</b>	<b>(3,028)</b>
<b>Net cash provided by / (used in) investing activities</b>	<b>(224)</b>	<b>-</b>	<b>-</b>	<b>212</b>	<b>193</b>	<b>(40)</b>	<b>141</b>
<b>Cash at beginning of year</b>	<b>357</b>	<b>15</b>	<b>5</b>	<b>63</b>	<b>14</b>	<b>-</b>	<b>454</b>
<b>Cash at end of year</b>	<b>\$ 525</b>	<b>\$ 14</b>	<b>\$ 12</b>	<b>\$ 61</b>	<b>\$ 120</b>	<b>\$ -</b>	<b>\$ 732</b>

## 16. SUBSEQUENT EVENTS

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 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 January 24, 2018, MTA effectuated a mandatory tender and remarketed \$122.635 million 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 million 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 January 31, 2018, MTA executed a 2,870,565 gallon ultra-low sulfur diesel fuel hedge with Goldman Sachs & Co./J Aron at an all-in price of \$1.9570 (whole dollars) per gallon. The hedge covers the period from January 2019 through December 2019.

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 February 28, 2018, MTA executed a 2,786,237 gallon ultra-low sulfur diesel fuel hedge with Goldman Sachs & Co./J Aron at an all-in price of \$1.8815 (whole dollars) per gallon. The hedge covers the period from February 2019 through January 2020.

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 20, 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 March 28, 2018, MTA executed a 2,853,500 gallon ultra-low sulfur diesel fuel hedge at an all-in price of \$1.9805 (whole dollars) per gallon. The hedge covers the period from March 2019 through February 2020.

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

**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		
	2016	2015	2014	2016	2015	2014
<b>Plan Measurement Date (December 31):</b>						
<b>Total pension liability:</b>						
Service cost	\$ 2,752	\$ 3,441	\$ 3,813	\$ 82,075	\$ 77,045	\$ 72,091
Interest	104,093	106,987	110,036	236,722	232,405	223,887
Effect of economic / demographic (gains) or losses	15,801	6,735	-	13,784	(68,997)	-
Differences between expected and actual experience	-	-	-	-	-	(1,596)
Benefit payments and withdrawals	(158,593)	(157,071)	(156,974)	(187,823)	(179,928)	(175,447)
<b>Net change in total pension liability</b>	<b>(35,947)</b>	<b>(39,908)</b>	<b>(43,125)</b>	<b>144,758</b>	<b>60,525</b>	<b>118,935</b>
<b>Total pension liability—beginning</b>	<b>1,562,251</b>	<b>1,602,159</b>	<b>1,645,284</b>	<b>3,391,989</b>	<b>3,331,464</b>	<b>3,212,529</b>
<b>Total pension liability—ending(a)</b>	<b>1,526,304</b>	<b>1,562,251</b>	<b>1,602,159</b>	<b>3,536,747</b>	<b>3,391,989</b>	<b>3,331,464</b>
<b>Plan fiduciary net position:</b>						
Employer contributions	81,100	100,000	407,513	220,697	214,881	226,374
Nonemployer contributions	70,000	-	-	-	-	-
Member contributions	884	1,108	1,304	18,472	16,321	15,460
Net investment income	58,239	527	21,231	212,260	(24,163)	105,084
Benefit payments and withdrawals	(158,593)	(157,071)	(156,974)	(187,823)	(179,928)	(175,447)
Administrative expenses	(611)	(1,218)	(975)	(186)	(88)	(74)
<b>Net change in plan fiduciary net position</b>	<b>51,019</b>	<b>(56,654)</b>	<b>272,099</b>	<b>263,420</b>	<b>27,023</b>	<b>171,397</b>
<b>Plan fiduciary net position—beginning</b>	<b>726,198</b>	<b>782,852</b>	<b>510,753</b>	<b>2,292,316</b>	<b>2,265,293</b>	<b>2,093,896</b>
<b>Plan fiduciary net position—ending(b)</b>	<b>777,217</b>	<b>726,198</b>	<b>782,852</b>	<b>2,555,736</b>	<b>2,292,316</b>	<b>2,265,293</b>
<b>Employer's net pension liability—ending(a)-(b)</b>	<b>\$ 749,087</b>	<b>\$ 836,053</b>	<b>\$ 819,307</b>	<b>\$ 981,011</b>	<b>\$ 1,099,673</b>	<b>\$ 1,066,171</b>
<b>Plan fiduciary net position as a percentage of the total pension liability</b>	<b>50.92%</b>	<b>46.48%</b>	<b>48.86%</b>	<b>72.26%</b>	<b>67.58%</b>	<b>68.00%</b>
<b>Covered-employee payroll</b>	<b>\$ 29,312</b>	<b>\$ 39,697</b>	<b>\$ 43,267</b>	<b>\$ 716,527</b>	<b>\$ 686,674</b>	<b>\$ 653,287</b>
<b>Employer's net pension liability as a percentage of covered-employee payroll</b>	<b>2555.56%</b>	<b>2106.09%</b>	<b>1893.61%</b>	<b>136.91%</b>	<b>160.14%</b>	<b>163.20%</b>

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.

**METROPOLITAN TRANSPORTATION AUTHORITY**  
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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**

**(continued)**

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

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.

**METROPOLITAN TRANSPORTATION AUTHORITY  
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**REQUIRED SUPPLEMENTARY INFORMATION**

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

(\$ in thousands)

Plan Measurement Date:	NYCERS Plan			NYSLERS Plan		
	June 30, 2017	June 30, 2016	June 30, 2015	March 31, 2017	March 31, 2016	March 31, 2015
MTA's proportion of the net pension liability	24.096%	23.493%	23.585%	0.311%	0.303%	0.289%
MTA's proportionate share of the net pension liability	\$ 5,003,811	\$ 5,708,052	\$ 4,773,787	\$ 29,239	\$ 48,557	\$ 9,768
MTA's actual covered-employee payroll	\$ 3,154,673	\$ 3,064,007	\$ 2,989,480	\$ 96,583	\$ 87,670	\$ 87,315
MTA's proportionate share of the net pension liability as a percentage of the MTA's covered-employee payroll	158.616%	186.294%	159.686%	30.273%	55.386%	11.187%
Plan fiduciary net position as a percentage of the total pension liability	74.805%	69.568%	73.125%	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.

**METROPOLITAN TRANSPORTATION AUTHORITY**  
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**REQUIRED SUPPLEMENTARY INFORMATION**

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

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
	(\$ in thousands)									
<b>Additional Plan*</b>										
Actuarially Determined Contribution	\$ 76,523	\$ 83,183	\$ 82,382	\$ 112,513	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Actual Employer Contribution	221,523	151,100	100,000	407,513	-	-	-	-	-	-
Contribution Deficiency (Excess)	\$ (145,000)	\$ (67,917)	\$ (17,618)	\$ (295,000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	\$ 20,500	\$ 29,312	\$ 39,697	\$ 43,267	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Contributions as a % of Covered Payroll	1080.62%	515.49%	251.91%	941.87%	N/A	N/A	N/A	N/A	N/A	N/A
<b>MaBSTOA Plan</b>										
Actuarially Determined Contribution	\$ 202,924	\$ 220,697	\$ 214,881	\$ 226,374	\$ 234,474	\$ 228,918	\$ 186,454	\$ 200,633	\$ 204,274	\$ 201,919
Actual Employer Contribution	202,684	220,697	214,881	226,374	234,474	228,918	186,454	200,633	204,274	201,919
Contribution Deficiency (Excess)	\$ 240	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	\$ 749,666	\$ 716,527	\$ 686,674	\$ 653,287	\$ 582,081	\$ 575,989	\$ 579,696	\$ 591,073	\$ 569,383	\$ 562,241
Contributions as a % of Covered Payroll	27.04%	30.80%	31.29%	34.65%	40.28%	39.74%	32.16%	33.94%	35.88%	35.91%
<b>Metro-North Cash Balance Plan*</b>										
Actuarially Determined Contribution	\$ -	\$ 23	\$ -	\$ 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Actual Employer Contribution	-	23	14	-	-	-	-	-	-	-
Contribution Deficiency (Excess)	\$ -	\$ -	\$ (14)	\$ 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	\$ 471	\$ 846	\$ 1,474	\$ 2,274	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Contributions as a % of Covered Payroll	0.00%	2.68%	0.96%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
<b>MTA Defined Benefit Plan*</b>										
Actuarially Determined Contribution	\$ 316,916	\$ 290,415	\$ 273,700	\$ 271,523	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Actual Employer Contribution	321,861	280,767	221,694	331,259	-	-	-	-	-	-
Contribution Deficiency (Excess)	\$ (4,945)	\$ 9,648	\$ 52,006	\$ (59,736)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	\$ 1,857,026	\$ 1,784,369	\$ 1,773,274	\$ 1,679,558	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Contributions as a % of Covered Payroll	17.33%	15.73%	12.50%	19.72%	N/A	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.

**METROPOLITAN TRANSPORTATION AUTHORITY**  
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**REQUIRED SUPPLEMENTARY INFORMATION**

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

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>
	(\$ in thousands)									
<b>NYCERS</b>										
Actuarially Determined Contribution	\$ 800,863	\$ 797,845	\$ 736,212	\$ 741,223	\$ 736,361	\$ 731,983	\$ 657,771	\$ 574,555	\$ 548,721	\$ 499,603
Actual Employer Contribution	800,863	797,845	736,212	741,223	736,361	731,983	657,771	574,555	548,721	499,603
Contribution Deficiency (Excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	\$ 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	\$ 2,656,778
Contributions as a % of Covered Payroll	21.25%	22.64%	21.07%	20.49%	25.02%	25.02%	22.68%	19.90%	19.59%	18.80%
<b>NYSLERS **</b>										
Actuarially Determined Contribution	\$ 13,969	\$ 12,980	\$ 15,792	\$ 13,816	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Actual Employer Contribution	13,969	12,980	15,792	13,816	-	-	-	-	-	-
Contribution Deficiency (Excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	\$ 103,787	\$ 94,801	\$ 86,322	\$ 84,041	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Contributions as a % of Covered Payroll	13.46%	13.69%	18.29%	16.44%	N/A	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.

**METROPOLITAN TRANSPORTATION AUTHORITY  
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**REQUIRED SUPPLEMENTARY INFORMATION**

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

	Additional Plan			MaBSTOA Plan		
<b>Valuation Dates:</b>	January 1, 2016	January 1, 2015	January 1, 2014	January 1, 2016	January 1, 2015	January 1, 2014
<b>Measurement Date:</b>	December 31, 2016	December 31, 2015	December 31, 2014	December 31, 2016	December 31, 2015	December 31, 2014
<b>Actuarial cost method:</b>	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost	Frozen Initial Liability (FIL)	Frozen Initial Liability (FIL)	Frozen Initial Liability (FIL)
<b>Amortization method:</b>	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.	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.
<b>Asset Valuation Method:</b>	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	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.
<b>Salary increases:</b>	3.00%	3.00%	3.00%	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.
<b>Actuarial assumptions:</b>						
<b>Discount Rate:</b>	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
<b>Investment rate of return :</b>	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.
<b>Mortality:</b>	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	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.
<b>Pre-retirement:</b>	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.
<b>Post-retirement Healthy Lives:</b>	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	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.
<b>Post-retirement Disabled Lives:</b>	N/A	N/A	N/A	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.
<b>Inflation/Railroad Retirement Wage Base:</b>	2.50%; 3.50%	2.50%; 3.50%	2.50%; 3.50%	2.50%	2.50%	2.50%
<b>Cost-of-Living Adjustments:</b>	N/A	N/A	N/A	1.375% per annum	1.375% per annum	1.375% per annum

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

**(continued)**

	MNR Cash Balance Plan			MTA Defined Benefit Plan		
<b>Valuation Dates:</b>	January 1, 2017	January 1, 2016	January 1, 2014	January 1, 2016	January 1, 2015	January 1, 2014
<b>Measurement Date:</b>	December 31, 2016	December 31, 2015	December 31, 2014	December 31, 2016	December 31, 2015	December 31, 2014
<b>Actuarial cost method:</b>	Unit Credit Cost	Unit Credit Cost	Unit Credit Cost	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost
<b>Amortization method:</b>	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).	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.
<b>Asset Valuation Method:</b>	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.	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.
<b>Salary increases:</b>	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.	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.
<b>Actuarial assumptions:</b>						
<b>Discount Rate:</b>	4.00%	4.00%	4.50%	7.00%	7.00%	7.00%
<b>Investment rate of return:</b>	4.00%, net of investment expenses.	4.00%, net of investment expenses.	4.50%, net of investment expenses.	7.00%	7.00%	7.00%
<b>Mortality:</b>	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.	Preretirement and postretirement 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.	Preretirement and postretirement 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.	Preretirement and postretirement healthy annuitant rates are projected on a generational basis using Scale AA, as recommended by the Society of Actuaries Retirement Plans Experience Committee. Mortality assumption is based on a 2012 experience study for all MTA plans.
<b>Pre-retirement:</b>	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.
<b>Post-retirement Healthy Lives:</b>	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	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.
<b>Post-retirement Disabled Lives:</b>	N/A	N/A	N/A	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.
<b>Inflation/Railroad Retirement Wage Base:</b>	2.30%	2.30%	2.50%	2.50%; 3.50%	2.50%; 3.50%	2.50%; 3.00%
<b>Cost-of-Living Adjustments:</b>	N/A	N/A	N/A	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.

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

**(continued)**

	NYCERS Plan			NYSLERS Plan		
<b>Valuation Dates:</b>	June 30, 2015	June 30, 2014	June 30, 2013	April 1, 2016	April 1, 2015	April 1, 2014
<b>Measurement Date:</b>	June 30, 2017	June 30, 2016	June 30, 2015	March 31, 2017	March 31, 2016	March 31, 2015
<b>Actuarial cost method:</b>	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost	Aggregate Cost method	Aggregate Cost method	Aggregate Cost method
<b>Amortization method:</b>	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfunded.	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfunded.	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfunded.	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.
<b>Asset Valuation Method:</b>	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.	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.
<b>Salary increases:</b>	3% per annum.	3% per annum.	3% per annum.	3.80%	3.80%	4.90%
<b>Actuarial assumptions:</b>						
<b>Discount Rate:</b>	7.00%	7.00%	7.00%	7.00%	7.00%	7.50%
<b>Investment rate of return :</b>	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.5%, net of investment expenses.
<b>Mortality:</b>	Mortality tables for service and disability pensioners were developed from an experience study of NYCERS's pensioners. The mortality tables for beneficiaries were developed from an experience review of NYCERS' beneficiaries. The most recently completed study was published by Gabriel Roeder & Company ("GRS"), dated October 2015, and analyzed experience for Fiscal Years 2010 through 2013.	Mortality tables for service and disability pensioners were developed from an experience study of NYCERS's pensioners. The mortality tables for beneficiaries were developed from an experience review of NYCERS' beneficiaries. The most recently completed study was published by Gabriel Roeder & Company ("GRS"), dated October 2015, and analyzed experience for Fiscal Years 2010 through 2013.	Mortality tables for service and disability pensioners were developed from an experience study of NYCERS's pensioners. The mortality tables for beneficiaries were developed from an experience review of NYCERS' beneficiaries. The most recently completed study was published by Gabriel Roeder & Company ("GRS"), dated October 2015, and analyzed experience for Fiscal Years 2010 through 2013.	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.
<b>Pre-retirement:</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Post-retirement Healthy Lives:</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Post-retirement Disabled Lives:</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Inflation/Railroad Retirement Wage Base:</b>	2.50%	2.50%	2.50%	2.50%	2.50%	2.70%
<b>Cost-of-Living Adjustments:</b>	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.	1.3% per annum.	1.3% per annum.	1.4% per annum.

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**REQUIRED SUPPLEMENTARY INFORMATION**

**(concluded)**

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

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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 changes of benefit terms in the June 30, 2015 valuation for the NYCERS plan.

There were no significant legislative changes in benefit for the April 1, 2015 valuation for the NYSLERS plan.

***Changes of Assumptions:***

There were no changes in benefit assumptions used in the June 30, 2015 valuation for the NYCERS plan.

There were changes in the economic and demographic assumptions used in the April 1, 2015 valuation for the NYSLERS plan.

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**REQUIRED SUPPLEMENTARY INFORMATION**

**SCHEDULE OF FUNDING PROGRESS FOR THE MTA POSTEMPLOYMENT BENEFIT PLAN**  
**(\$ in millions)**

<b>Year Ended</b>	<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets {a}</b>	<b>Actuarial Accrual Liability (AAL) {b}</b>	<b>Unfunded Actuarial Accrual Liability (UAAL) {c} = {b} - {a}</b>	<b>Funded Ratio {a} / {b}</b>	<b>Covered Payroll {d}</b>	<b>Ratio of UAAL to Covered Payroll {c} / {d}</b>
December 31, 2017	January 1, 2016	\$ 298	\$ 19,802	\$ 19,504	1.50 %	\$ 5,041.0	386.9 %
December 31, 2016	January 1, 2014	\$ 300	\$ 18,472	\$ 18,172	1.60 %	\$ 4,669.8	389.1 %
December 31, 2015	January 1, 2014	\$ 300	\$ 18,472	\$ 18,172	1.60 %	\$ 4,669.8	389.1 %

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**SUPPLEMENTARY INFORMATION**

**SCHEDULE OF CONSOLIDATED RECONCILIATION BETWEEN FINANCIAL PLAN  
AND FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2017**

**(\$ in millions)**

Category	Financial Plan Actual	Statement GAAP Actual	Variance
<b>REVENUE:</b>			
Farebox revenue	\$ 6,172	\$ 6,172	\$ -
Vehicle toll revenue	1,907	1,912	5
Other operating revenue	<u>665</u>	<u>589</u>	<u>(76)</u>
Total revenue	<u>8,744</u>	<u>8,673</u>	<u>(71)</u>
<b>OPERATING EXPENSES:</b>			
<b>Labor:</b>			
Payroll	5,037	5,025	(12)
Overtime	882	943	61
Health and welfare	1,214	1,210	(4)
Pensions	1,154	1,182	28
Other fringe benefits	889	793	(96)
Postemployment benefits	2,250	2,155	(95)
Reimbursable overhead	<u>(476)</u>	<u>(443)</u>	<u>33</u>
Total labor expenses	<u>10,950</u>	<u>10,865</u>	<u>(85)</u>
<b>Non-labor:</b>			
Electric power	444	430	(14)
Fuel	147	151	4
Insurance	30	(3)	(33)
Claims	314	525	211
Paratransit service contracts	391	393	2
Maintenance and other	751	645	(106)
Professional service contract	575	425	(150)
Pollution remediation project costs	4	13	9
Materials and supplies	606	588	(18)
Other business expenses	<u>209</u>	<u>207</u>	<u>(2)</u>
Total non-labor expenses	<u>3,471</u>	<u>3,374</u>	<u>(97)</u>
Depreciation	2,615	2,611	(4)
Other Expenses Adjustment	<u>52</u>	<u>-</u>	<u>(52)</u>
Total operating expenses	<u>17,088</u>	<u>16,850</u>	<u>(238)</u>
<b>NET OPERATING LOSS</b>	<u>\$ (8,344)</u>	<u>\$ (8,177)</u>	<u>\$ 167</u>

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**SUPPLEMENTARY INFORMATION**

**SCHEDULE OF CONSOLIDATED SUBSIDY ACCRUAL RECONCILIATION BETWEEN  
FINANCIAL PLAN AND FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2017**  
**(\$ in millions)**

	<b>Financial Plan Actual</b>	<b>Financial Statement GAAP Actual</b>	<b>Variance</b>	
<b>Accrued Subsidies</b>				
Mass transportation operating assistance	\$ 1,668	\$ 1,668	\$ -	
Mass transit trust fund subsidies	614	606	(8)	{1}
Mortgage recording tax 1 and 2	460	453	(7)	{1}
MRT transfer	(10)	(9)	1	{1}
Urban tax	520	539	19	{1}
State and local operating assistance	376	376	-	{1}
Station maintenance	167	165	(2)	{1}
Connecticut Department of Transportation (CDOT)	121	103	(18)	{1}
Subsidy from New York City for MTA Bus and SIRTOA	548	503	(45)	{1}
NYS Grant for debt service	-	5	5	{3}
Build American Bonds Subsidy		88	88	{1}
Mobility tax	2,004	1,987	(17)	{1}
Other non-operating income	<u>1</u>	<u>12</u>	<u>11</u>	{2}
Total accrued subsidies	6,469	6,496	27	
Net operating deficit before subsidies and debt service	(8,344)	(8,177)	167	
Debt Service	(2,507)	(1,517)	990	
Conversion to Cash basis: Depreciation	2,615	-	(2,615)	
Conversion to Cash basis: OPEB Obligation	1,681	-	(1,681)	
Conversion to Cash basis: GASB 68 pension adjustment	(172)	-	172	
Conversion to Cash basis: Pollution & Remediation	<u>4</u>	<u>-</u>	<u>(4)</u>	
Total net operating surplus/(deficit) before appropriation, grants and other receipts restricted for capital projects	<u>\$ (254)</u>	<u>\$ (3,198)</u>	<u>\$ (2,944)</u>	

{1} The Financial Plan records on a cash basis while the Financial Statement records on an accrual basis.

{2} The Financial Plan records do not include other non-operating income or changes in market value.

{3} The Financial Plan records do not include other non-operating subsidy or expense for the refunding of NYS Service Contract Bonds.

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**SUPPLEMENTARY INFORMATION**  
**SCHEDULE OF FINANCIAL PLAN TO FINANCIAL STATEMENTS RECONCILIATION**  
**RECONCILING ITEMS**  
**FOR THE YEAR ENDED DECEMBER 31, 2017**  
**(\$ in millions)**

<b>Financial Plan Actual Operating Loss at December 31, 2017</b>	<b>\$ (8,344)</b>
<b>The Financial Plan Actual Includes:</b>	
1 Lower other operating revenues	(22)
2 Lower OPEB expense based on the most recent actuarial calculations	95
3 Higher pension expense based on most recent actuarial calculations	(28)
4 Higher labor expense primarily from reimbursable overhead	18
5 Higher claims expense based on most recent actuarial calculations	(211)
6 Lower non-labor expense	296
7 Intercompany eliminations and other adjustments	19
<b>Total operating reconciling items</b>	<b>167</b>
<b>Financial Statements Operating Loss at December 31, 2017</b>	<b>(8,177)</b>
<b>Financial Plan Deficit after Subsidies and Debt Service</b>	<b>(254)</b>
<b>The Audited Financial Statements Includes:</b>	
1 Higher dedicated taxes and subsidies	27
2 Lower debt service expense (excludes bond principal payments)	990
3 Adjustments for non-cash liabilities:	
Depreciation	(2,615)
Unfunded OPEB Expense	(1,681)
Unfunded GASB 68 Pension adjustment	172
Unfunded Pollution Remediation Expense	(4) (4,128)
4 Total operating reconciling items (from above)	167
<b>Financial Statement Loss Before Capital Appropriations</b>	<b>\$ (3,198)</b>