Metropolitan Transportation Authority Retiree Welfare Benefits Plan (“Other Postemployment Benefits Plan” or “OPEB Plan”)

Financial Statements as of and for the
Years Ended December 31, 2018 and 2017
Supplemental Schedules, and
Independent Auditors’ Report

METROPOLITAN TRANSPORTATION AUTHORITY
OTHER POST EMPLOYMENT BENEFITS PLAN

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INDEPENDENT AUDITORS' REPORT

To the Board of Managers of the
Metropolitan Transportation Authority Retiree Welfare Benefits Plan

Report on the Financial Statements

We have audited the accompanying statements of plan net position of the Metropolitan Transportation Authority Retiree Welfare Benefits Plan (the "Plan") as of December 31, 2018 and 2017, and the related statements of changes in plan net position for the years then ended, and the related notes to the financial statements, which collectively comprise the Plan's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the Plan net position as of December 31, 2018 and 2017, and the respective changes in Plan net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on pages 3 through 9, the Schedule of Changes in Employers' Net OPEB Liability and Related Ratios on page 32, the Schedule of Employer Contributions on page 33 and the Schedule of Investment Returns on page 34 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with or provide any assurance.

Deloitte & Touche LLP

February 24, 2020

The purpose of the Metropolitan Transportation Authority ("MTA") Retiree Welfare Benefits Plan ("Other Postemployment Benefits Plan" or "OPEB Plan" or the "Plan") and the related Trust Fund is to provide a vehicle for the MTA organization to set aside funds to assist it in providing health and other welfare benefits to eligible retirees and their beneficiaries. The Plan and the Trust Agreement are exempt from federal income taxation under Section 115(1) of the Code. The MTA is not required by law or contractual agreement to provide funding for the Plan, other than the "pay-as-you-go" cost of providing current benefits to current eligible retirees, spouses and dependents ("Pay-Go").

This management's discussion and analysis of the Plan's financial performance provides an overview of the Plan's financial activities for the years ended December 31, 2018 and 2017. It is meant to assist the reader in understanding the Plan's financial statements by providing an overall review of the financial activities during the year and the effects of significant changes. This discussion and analysis may contain opinions, assumptions, or conclusions by the MTA's management that should not be considered a replacement for, and is intended to be read in conjunction with, the Plan's financial statements which begin on page 11.

Overview of Basic Financial Statements

The following discussion and analysis is intended to serve as an introduction to the financial statements. The basic financial statements are:

- **The Statements of Plan Net Position** — presents the financial position of the Plan at year end. It provides information about the nature and amounts of resources with present service capacity that the Plan presently controls (assets), consumption of net assets by the Plan that is applicable to a future reporting period (deferred outflow of resources), present obligations to sacrifice resources that the Plan has little or no discretion to avoid (liabilities), and acquisition of net assets by the Plan 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. Investments are shown at fair value. All other assets and liabilities are determined on an accrual basis.

- **The Statements of Changes in Plan Net Position** — present the results of activities during the year. All changes affecting the assets and liabilities of the Plan are reflected on an accrual basis when the activity occurred regardless of the timing of the related cash flows. In that regard, changes in the fair values of investments are included in the year's activity as net appreciation/(depreciation) in fair value of investments.

- **The Notes to Financial Statements** — provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes present information about the Plan's accounting policies, significant account balances and activities, material risks, obligations, contingencies, and subsequent events, if any.

- **Required Supplementary Information** as required by the Governmental Accounting Standards Board ("GASB") is presented after the management discussion and analysis, the statement of Plan net position, the statement of changes in Plan net position and the notes to the combined financial statements.

The accompanying financial statements of the Plan are presented in conformity with accounting principles generally accepted in the United States of America as prescribed by the GASB.

Financial Highlights

Plan Net Position
December 31, 2018, 2017, and 2016
(Dollars in thousands)

				Amount of Change		Percentage Change	
	2018	2017	2016	(2018 - 2017)	(2017 - 2016)	(2018 - 2017)	(2017 - 2016)
ASSETS:							
Investments	$ 351,538	$ 370,596	$ 323,199	$ (19,058)	$ 47,397	(5.1)%	14.7%
Receivables and other assets	14	7	3	7	4	100.0	133.3
TOTAL ASSETS	351,552	370,603	323,202	(19,051)	47,401	(5.1)	14.7
LIABILITIES:							
Benefits payable and accrued expenses	172	251	220	(79)	31	(31.5)	14.1
TOTAL LIABILITIES	172	251	220	(79)	31	(31.5)	14.1
PLAN NET POSITION HELD IN TRUST FOR OTHER POSTEMPLOYMENT BENEFITS	$ 351,380	$ 370,352	$ 322,982	$ (18,972)	$ 47,370	(5.1)%	14.7%

Plan net position is held in trust for the payment of future benefits to members and beneficiaries. The assets of the Plan exceeded its liabilities by $351.4 million, $370.4 million, and $323.0 million as of December 31, 2018, 2017, and 2016, respectively. The decrease in 2018 is primarily a result of net depreciation on fair value of investments held and investment fees whereas the net increase in 2017 is primarily a result of net appreciation on fair value of investments held offset by investment fees charged to the Plan.

Changes in Plan Net Position
For the Years Ended December 31, 2018, 2017, and 2016
(Dollars in thousands)

				Amount of Change		Percentage Change	
	2018	**2017**	**2016**	**(2018 - 2017)**	**(2017 - 2016)**	**(2018 - 2017)**	**(2017 - 2016)**
ADDITIONS:							
Total investment income/(loss)	$ (17,227)	$ 49,231	$ 27,177	$ (66,458)	$ 22,054	(135.0)%	81.1 %
Less:							
Investment expenses	1,689	1,861	1,743	(172)	118	(9.2)	6.8
Net investment income/(loss)	(18,916)	47,370	25,434	(66,286)	21,936	(139.9)	86.2
Add:							
Employer contributions	616,638	579,893	551,013	36,745	28,880	6.3	5.2
Implicit rate subsidy contribution	74,484	71,101	-	3,383	71,101	4.8	100.0
Total additions	672,206	698,364	576,447	(26,158)	121,917	(3.7)	21.1
DEDUCTIONS							
Benefit payments	616,638	579,893	551,013	36,745	28,880	6.3	5.2
Implicit rate subsidy payments	74,484	71,101	-	3,383	71,101	4.8	100.0
Administrative expenses	56	-	-	56	-	-	-
Total deductions	691,178	650,994	551,013	40,184	99,981	6.2	18.1
Net increase/(decrease) in Plan net position	(18,972)	47,370	25,434	(66,342)	21,936	(140.1)	86.2
PLAN NET POSITION HELD IN TRUST FOR OTHER POSTEMPLOYEMENT BENEFITS							
Beginning of year	370,352	322,982	297,548	47,370	25,434	14.7	8.5
End of year	$ 351,380	$ 370,352	$ 322,982	$ (18,972)	$ 47,370	(5.1)%	14.7 %

The Plan's net position held in trust decreased by $19.0 million during 2018 whereas it increased by $47.4 million during 2017 and by $25.4 million during 2016. In 2018, the Plan's net depreciation in the fair market value was $17.3 million with investment fees of $1.7 million. In 2017, the Plan's net appreciation in fair market values were $49.2 million and the investment fees were $1.9 million.

Investments

The table below summarizes the Plan's investment measured at fair value – net asset values.

December 31, 2018 (Dollars in thousands)	Fair Value	Allocation
Type of Investments		
Investment measured at the NAV	$ 351,538	100.00 %
	$ 351,538	100.00 %

December 31, 2017 (Dollars in thousands)	Fair Value	Allocation
Type of Investments		
Investment measured at the NAV	$ 370,596	100.00 %
	$ 370,596	100.00 %

Economic Factors

Market Overview and Outlook – 2018

Risk aversion and volatility marked the end of 2018, with geopolitical developments and concerns about slowing growth both contributing to the sell-off in global equity markets. U.S. stocks led the decline, contributing to the first calendar year with negative returns since 2008. Amid the equity underperformance, credit spreads widened, developed market yields fell, and the U.S. dollar weakened. In addition, the Federal Reserve ("Fed") hiked interest rates as expected, though trimmed its forecast for hikes in 2019.

Several factors contributed to heightened market volatility throughout 2018—most importantly, investor concerns brought on by rising trade tensions, particularly between the U.S. and China, the apparent shift to a moderately tighter monetary policy by central banks in major developed countries; and the potential for slower growth, especially in China and Europe. Most major indices closed in negative territory at the end fourth quarter. After a difficult start, emerging markets ("EM") held up better than their developed world counterparts in the fourth quarter, but still trailed for 2018 overall. The U.S. market was among the bottom-performing indices in the last quarter but led most major indices for the year, notwithstanding the S&P 500 Index's worst performance since the conclusion of the global financial crisis. As a result, global financial markets proved to be a challenging environment during the fourth quarter of 2018.

From a monetary policy perspective, the Fed raised rates 25bps as expected in December and signaled a slower pace of tightening in 2019 as it continued to unwind its extensive balance sheet. Investors divined a more dovish tone from the Fed's 2019 projections, but markets remained volatile through the end of the year. Globally, most developed-world central banks began moving towards modestly tighter stances, including the European Central Bank ("ECB"), which formally announced the end of its bond-buying program in December, concluding a roughly €2.6 trillion program. Across the channel, the Bank of England raised rates twice since the country's Brexit referendum in June 2016, but recently indicated it was prepared to pivot as necessary once the formal exit takes place in early 2019. The Bank of Japan has long been in its own monetary policy lane, remaining by far the most accommodative of the major global central banks.

Macro Themes

- Major indices post worst year since 2008 as trade, economic outlook and monetary policy weigh on investors
- Global growth modestly decelerates but remains positive
- Trade uncertainty

After reaching a new high in September, the S&P 500 lost nearly 14% during the fourth quarter to end the year, down more than 4.4%. The Dow Jones Industrial Index was off 11% for the quarter, as was Europe's Stoxx Limited Index, which ended the quarter 600 points lower. China's Shanghai Composite also lost 12% over the last quarter and nearly 25% for the year. The year's sharp drawdown seemed unlikely at the outset of 2018, given the relatively robust outlook at the time. The silver lining is that share prices now appear cheap from a forward price/earnings perspective compared to long-run averages and the outlook, although more challenging, is still largely positive for 2019.

Global growth slowed, rather than stalled, in the second half of 2018. The U.S. outperformed its peers in end-of-year data with annualized GDP up 3.4% in the third quarter. In contrast, growth in the Eurozone dropped to 0.2% in the third quarter (and 1.7% year-on-year). The German economy contracted due to disruption to the auto industry from tougher emissions rules, while the Italian economy stalled over its now-resolved budget standoff with the European Union. China's growth fell to 6.5% in the third quarter, although the government expects to beat its 6.5% growth target for the full year.

The extent of global growth deceleration is one unknown for markets; how central banks will react is another. The Fed softened its tone on potential hikes in 2019 but nevertheless, it remained too hawkish for some as it stuck to plans to unwind its balance sheet, contributing to year-end market volatility. In December, the ECB ended its bond-buying program but gave no guidance when negative interest rates might end. Loose monetary conditions also remained in force in the UK and Japan as policymakers balanced the competing needs of fragile growth, inflation and the desire to wean economies off support. Despite fears of heavy-handedness, the global approach remained measured.

The greatest concern for markets continues to be the tariff war. The pause in the dispute following the G20 meeting between the U.S. and China provided hope that a more permanent solution could be reached. However, stocks in China, as well as international companies with exposure to China, were affected by weakening sentiment and actual fallout. Apple became the latest U.S. corporation to point the finger at the trade war when it announced that fourth quarter revenues would be lower than expected. Declining consumer confidence in China and cheaper domestic alternatives were significant contributing factors.

The issue of confidence also hindered business. Uncertainty surrounding trade and political issues, such as further concern about a no-deal Brexit in the UK, held back capital investment, as Chief Executive Officers awaited greater clarity, thus creating a silver lining for equity investors. Supercharged earnings growth in 2018 resulted in record share buybacks as announced, and U.S. stock repurchases broke through the $1 trillion mark in December. Following the market retreat in the fourth quarter, more buybacks can be anticipated in the future. At the very least, the challenges of the fourth quarter present active investors with a more reasonable valuation and a very attractive starting point for 2019.

EM central banks have meanwhile faced their own travails, primarily centered around the security of central bank independence, particularly in Turkey and India. For now, the question in both countries seems to be largely settled in favor of independence—a positive for markets; but as is often the case in EM, that does not preclude the issue resurfacing down the road.

United States

Through mid-2018, U.S. capital markets enjoyed the longest equity bull market in their history. Valuations of stocks reached levels rarely-- and for some valuations measures, never-- seen before. However, in the fourth quarter of 2018, markets in the U.S. weakened tremendously with the S&P 500 ending the year down 13.5% with U.S. equities underperforming in 2018 compared to 2017.

Large Cap stocks were strongly negative, with the S&P 500 and Russell 1000 indices posting returns of (-4.4%) and (-4.84%), respectively. Small Cap and Mid Cap indices underperformed large cap. Small Cap, as measured by the Russell 2500 Index, returned (-10.0%). The Russell Mid Cap Index measured by the Russell 2000 Index lagged the Small Cap and posted a return loss of (-11.0%). Of note, growth oriented investments outperformed the value counterpart with the Russell 1000 Growth (-1.5%) outpacing the Russell 1000 Value (-8.3%).

Fixed income markets took the four rate hikes by the Fed in stride in 2018. Treasuries returned (+0.9%) for the year, with the assets strongest quarter coming in the first quarter of 2018. Municipal credit outperformed Treasuries for the year, with (+4.8%), posting positive returns for four straight quarters. Following strong results in 2017, high yield debt underperformed and ended its upward trend in 2018, returning (-2.1%).

International Developed

International equity markets posted very weak results in 2018 and lagged behind U.S. equity markets, returning (-9.4%) as measured by the Morgan Stanley Capital International ("MSCI") All Country World Index. In U.S. dollars, both Europe and Japan equities posted negative performance in 2018 with MSCI Europe returning (-14.9%) and MSCI Japan returning (-12.9%). Weak returns in Europe were driven by the global negative market performance in the last quarter of 2018. The Small Cap portion of international developed markets posted even weaker returns in 2018, (-17.9%).

Fixed income markets in Europe and Japan are largely centered on government bonds, with corporate and asset-backed issuance making up a fraction of the overall markets. Global Treasuries were negative in 2018, following a positive year in 2017.

Emerging Markets

Emerging markets posted very weak returns in 2018 with performance lower than both U.S. and international developed markets across equity and debt. The broad emerging markets index returned (-14.6%) for the year. Brazil was the best performing country, buoyed by President-elect Jair Bolsonaro's pick for chief economic advisor and his pledge to sell state owned companies. Within the EM group, Asia lagged, pulled down by declines in China, Korea and Taiwan. Healthcare and information technology were among the worst performing EM sectors, losing 15.4% and 15.1%, respectively.

The bond markets of emerging markets underperformed in 2018. Both hard currency and local currency bond posted very weak years in performance. Hard currency bonds, which are predominately issued in U.S. dollars, returned (-4.3%) in 2018. Local currency bonds, which are issued in the local currency, returned (-6.2%) for the year.

Commodities

Commodities posted negative results in 2018, with the broad Bloomberg Commodity Index down (-11.2%). Energy was the worst performing sub-sector, as oil prices were dampened by concerns of oversupply based on high inventories and stronger-than-expected production in Iran. Natural gas posted losses of -2.3% in a volatile quarter marked by low inventory levels and fluctuating weather forecasts. Natural gas consumption is projected to decrease slightly in the residential and commercial sectors, as expected milder weather will require less energy for space heating in the winter and air conditioning in the summer, largely based on temperature projections from the National Oceanic and Atmospheric Administration. On the other hand, precious metals strengthened towards the end of 2018, bolstered by the sell-off in equities and expectations for higher real interest rates.

Market Outlook

Global economic growth is likely to slow modestly in 2019, but the prevalent view is that investors' worst fears are likely exaggerated, as most of the world's economies will continue to expand rather than contract. Therefore, for the time being there is not – expectation of recession on the horizon.

There are many reasons for investors to be to be optimistic. U.S. corporate profit margins should remain high after the boost from 2018 tax cuts, which should result in earnings growth in the high single-digits or better. Furthermore, a more dovish stance from the Fed could signal a cyclical peak for the U.S. dollar, helping U.S. manufacturing and also providing some welcome relief for embattled EM companies facing higher dollar-denominated borrowing costs.

The Eurozone is expected to increase economic activities in the first half of 2019. Disruption to the German auto industry from new emissions standards, potential for increased fiscal stimulus across major economies in the bloc and the positive developments in Italy signaling a stronger unity in the European Union ("EU") can be potential catalysts for improving growth. Nevertheless, the intense uncertainty around Brexit will be a drag on the UK in the first quarter of 2019 and may extend its impact across Europe should Britain leave the EU without a deal on March 29th 2019.

An agreement between Organization Petroleum Exporting Countries ("OPEC") and its oil-producing allies to cut output can lead to greater price stability in 2019. But oil, and the broader commodity sector, remains a leading global growth concern.

Intense uncertainty on global trade remains the big issue gripping investors. The pause in the U.S.-China trade war could pave the way for a more comprehensive agreement. Nonetheless, significant obstacles remain, such as China's real desire to follow through on promises to open up its economy and end forced technology transfers.

Objectively, there can be little doubt there are multiple risks globally in this late-cycle phase. However, the outlook is far from bleak, and there is substantial consensus that 2019 could be a good year for portfolio reallocations, taking advantage of dislocated sectors, oversold opportunities and market outperformance.

Contact Information

This financial report is designed to provide a general overview of the Metropolitan Transportation Authority Other Postemployment Benefits Plan's finances. Questions concerning any data provided in this report or requests for additional information should be directed to the Comptroller, Metropolitan Transportation Authority, 2 Broadway, 16th Floor, New York, NY 10004.

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METROPOLITAN TRANSPORTATION AUTHORITY
OTHER POSTEMPLOYMENT BENEFITS PLAN

STATEMENTS OF PLAN NET POSITION
AS OF DECEMBER 31, 2018 AND 2017
(In thousands)

	2018	2017
ASSETS:		
Investments measured at fair value - net asset value	$ 351,538	$ 370,596
Interest receivable	14	7
Total assets	351,552	370,603
LIABILITIES:		
Benefits payable and accrued expenses	172	251
Total liabilities	172	251
PLAN NET POSITION HELD IN TRUST FOR OTHER POSTEMPLOYMENT BENEFITS	$ 351,380	$ 370,352

See notes to financial statements.

METROPOLITAN TRANSPORTATION AUTHORITY
OTHER POSTEMPLOYMENT BENEFITS PLAN

STATEMENTS OF CHANGES IN PLAN NET POSITION
FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017
(In thousands)

	2018	2017
ADDITIONS:		
Net realized and unrealized (loss) /gains	$ (22,591)	$ 42,470
Dividends	5,203	6,697
Interest	161	64
Total investment (loss)/income	(17,227)	49,231
Less:		
Investment expenses	1,689	1,861
Net investment (loss)/income	(18,916)	47,370
Add:		
Employer contributions	616,638	579,893
Implicit rate subsidy contribution	74,484	71,101
Total additions	672,206	698,364
DEDUCTIONS:		
Benefit Payments	616,638	579,893
Implicit rate subsidy payments	74,484	71,101
Administrative expenses	56	-
Total deductions	691,178	650,994
Net (decrease) / increase in Plan net position	(18,972)	47,370
PLAN NET POSITION HELD IN TRUST FOR OTHER POSTEMPLOYMENT BENEFITS:		
Beginning of year	370,352	322,982
End of year	$ 351,380	$ 370,352

See notes to financial statements.

1. BACKGROUND AND ORGANIZATION

The Metropolitan Transportation Authority ("MTA") Retiree Welfare Benefits Plan ("Other Postemployment Benefits Plan" or "OPEB Plan" or the ("Plan") and the related Trust Fund was established effective January 1, 2009 for the exclusive benefit of The MTA Group's retired employees and their eligible spouses and dependents, to fund some of the OPEB benefits provided in accordance with the MTA's Group's various collective bargaining agreements and MTA policies. The MTA Group is comprised of the following current and former agencies:

- MTA New York City Transit
- MTA Long Island Rail Road
- MTA Metro-North Railroad
- MTA Bridges and Tunnels
- MTA Headquarters ("MTAHQ")
- MTA Long Island Bus
- MTA Staten Island Railway
- MTA Bus Company
- MTA Capital Construction

The Trust is tax exempt in accordance with Section 115 of the Internal Revenue Code. The Plan is classified as a single employer plan for Governmental Accounting Standards Board ("GASB") Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* ("GASB 74") purposes.

The MTA is not required by law or contractual agreement to provide funding for the Plan, other than the "pay-as-you-go" amount necessary to provide the current benefits to current eligible retirees, spouses and dependents (Pay-Go).

GASB 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* prescribes uniform financial reporting standards for other postemployment benefits ("OPEB") plans of all state and local governments. OPEB refers to postemployment benefits other than pension benefits and includes postemployment healthcare benefits which are covered under The MTA OPEB plan.

Plan Administration – The Other Postretirement Plan is administered by the Board of Managers, which is comprised of:

(a) the persons holding the following positions:
   (i) the Chairman of the MTA;
   (ii) the MTA Chief Financial Officer; and
   (iii) the MTA Director of Labor Relations.

(b) Designation of Others – Any member of the Board of Managers, serving as such by virtue of holding a position described in (a) of this section, may, by written authorization filed with the Secretary, designate another individual, not then a member, to serve in that member's stead, in accordance with procedures established with the approval of the Executive Director of the MTA. Any such authorization may be revoked by the designating member at any time in writing filed in the same manner.

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.

OPEB Funding - During 2012, MTA funded $250 million into a Trust allocated between MTA Headquarters and MTA New York City Transit and funded an additional $50 million during 2013 allocated between MTA Long Island Railroad and MTA Metro-North Railroad. There have been no further contributions made to the Trust. Since the amount of benefits paid during 2018 exceed the current market value of assets, a depletion date is assumed to occur immediately. Therefore, the discount rate is set equal to the municipal bond index. MTA elected the Bond Buyer 20-Bond GO Index. As a result, the discount rates as of December 31, 2018 and December 31, 2017 are 4.10% and 3.44%, respectively.

Blended and Age-adjusted Premium (in thousands)	**2018 Retirees**	**2017 Retirees**
Total blended premiums	$616,638	$579,893
Employment payment for retiree healthcare	74,484	71,101
Retiree Contributions	-	-
Net Payments	$691,122	$650,994

The $74,484 and $71,101 employer payments for retiree healthcare shown in the preceding table are cash payments in the years 2018 and 2017, respectively. Based on the premium structure of NYSHIP, it is part of the employer's payment for active-employee healthcare benefits; but reflects the higher costs among retirees than actives. The $74,484 and $71,101, therefore, are not payments for active-employee benefits; rather, but represents benefit payment for healthcare coverage for the years 2018 and 2017 for retirees.

Significant Changes - This valuation reflects a change to the plan provisions that was adopted during the measurement period. Non-represented members of MTA Bus Company are now eligible for MaBSTOA style pension benefits, which include changes to retirement eligibility conditions. The change in retirement eligibility resulted in a change in the OPEB liability. In addition, spouses of International Brotherhood of Teamsters Local 808 members of MTA Metro-North who retire on or after July 1, 2017 will be eligible for a $100 per month supplemental benefit upon becoming eligible for Medicare, payable during the retiree's lifetime.

2. PLAN DESCRIPTION, ELIGIBILITY AND MEMBERSHIP INFORMATION

The benefits provided by the MTA Group include medical, pharmacy, dental, vision, life insurance and a Medicare supplemental plan. The different types of benefits provided vary by MTA agency and relevant collective bargaining agreements. Certain benefits are provided upon retirement. “Retirement” is defined by the applicable pension plan. Certain agencies provide benefits to certain former employees if separated from service within 5 years of attaining retirement eligibility. Employees of the MTA Group are members of the following pension plans: the MTA Defined Benefit Pension Plan (“MTADBPP”), the MTA Long Island Rail Road Plan for Additional Pensions, the Metro-North Cash Balance Plan, the Manhattan and Bronx Surface Transit Operating Authority (“MaBSTOA”) Pension Plan, the New York City Employees’ Retirement System (“NYCERS”) and the New York State and Local Employees’ Retirement System (“NYSLERS”). Certain represented employees of Metro-North Railroad participate in the Thrift Plan for Employees of MTA, its Subsidiaries and Affiliates (“401(k) Plan”). Eligible employees of the MTA Group may elect to join the New York State Voluntary Defined Contribution Plan (“VDC”).

The MTA Group participates in the New York State Health Insurance Program (“NYSHIP”), and provides medical and prescription drug benefits, including Medicare Part B reimbursements, to many of its retirees. NYSHIP offers a Preferred Provider Organization (“PPO”) plan and several Health Maintenance Organization (“HMO”) plans. However, represented MTA New York City Transit employees, other MTA New York City Transit former employees who retired prior to January 1, 1996 or January 1, 2001, MTA Staten Island Railway represented employees as of March 1, 2010, June 1, 2010 or January 1, 2013 depending on the union and MTA Bus Company represented employees do not participate in NYSHIP. These benefits are provided 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 74 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 biennial valuation was performed with a valuation date of July 1, 2017. The total number of plan participants as of July 1, 2017 receiving retirement benefits was approximately 46 thousand.

Plan Eligibility — Generally, to qualify for benefits under the Plan, a former employee of The MTA must:

- have retired, be receiving a pension (except in the case of the 401(k) Plan), and have at least 10 years of credited service as a member of NYCERS, NYSLERS, the MTADBPP, the MaBSTOA Pension Plan, the 401(k) Plan or the VDC and have attained a minimum age requirement (unless within 5 years of commencing retirement for certain members); provided, however, a represented retired employee may be eligible only pursuant to the relevant collective bargaining agreement.

- Surviving Spouse and Other Dependents:

  (i) Lifetime coverage is provided to the surviving spouse (not remarried) or domestic partner and surviving dependent children to age 26 of retired managers and certain non-represented retired employees.

(ii) Represented retired employees must follow the guidelines of their collective bargaining agreements regarding continued health coverage for a surviving spouse or domestic partner and surviving dependents. For represented employees of MTA New York City Transit and MTA Staten Island Railway retiring on or after May 21, 2014 for TWU Local 100, September 24, 2014 for ATU Local 726, October 29, 2014 for ATU Local 1056, March, 25, 2015 for TCU and December 16, 2015 for UTU and ATDA, surviving spouse coverage continues until spouse is eligible for Medicare.

(iii) Lifetime coverage is provided to the surviving spouse (not remarried) or domestic partner and surviving dependents of retired uniform members of the MTA Police Department.

(iv) Lifetime coverage is provided to the surviving spouse (not remarried) or domestic partner and surviving dependent children to age 26 of uniformed members of the MTA Police Department whose death was sustained while in performance of duty.

Benefits are established and amended by the MTA, except to the extent that they have been established by collective bargaining agreement.

Plan Membership — As permitted under GASB 74, the Plan has elected to use July 1, 2017, as the valuation date of the OPEB actuarial valuation. The Plan's combined membership consisted of the following at January 1, 2016, the date of the most recent OPEB actuarial valuation:

	July 1, 2017	**January 1, 2016**
Active Plan members	72,047	70,070
Inactive Plan members currently receiving Plan benefit payments	45,330	46,064
Inactive Plan members entitled to but not yet receiving benefit payments	254	155
Total number of participating employees	117,631	116,289

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting — The Plan's financial statements are prepared on the accrual basis of accounting under which deductions are recorded when the liability is incurred and revenues are recognized in the accounting period in which they are earned. Employer contributions are recognized when paid in accordance with the terms of the Plan. Additions to the Plan consist of employer contributions and net investment income. Investment purchases and sales are recorded as of trade date.

The financial statements have been prepared in accordance with the accounting principles generally accepted in the United States of America, as prescribed by Government Accounting Standards Board ("GASB").

Recent Accounting Pronouncements — The Plan adopted GASB Statement No. 85, *Omnibus 2017* ("GASB 85"). GASB 85 address practice issues that had been identified during implementation and application of certain GASB statements. The Plan has determined that GASB Statement No. 85 did not have a material impact on the December 31, 2018 financial statements.

Recent Accounting Pronouncements — Not yet adopted but currently being reviewed

GASB Statement No.	GASB Accounting Standard	MTA Welfare Benefits Plan Required Year of Adoption
84	*Fiduciary Activities*	2019

Investments — The Plan's investments are those which are held in the Trust. Investments are reported on the statements of plan net position at fair value based on quoted market prices or Net Asset Value, which is determined to be a practical expedient for measuring fair value. Investment income, including changes in the fair value of investments, is reported on the Statements of changes in Plan net position during the reporting period.

Benefit Payments — The Plan Sponsor makes direct payments of insurance premiums for healthcare benefits to OPEB Plan members or beneficiaries. Payments made directly to the insurers by the Plan Sponsor which bypass the trust are treated as additions and deductions from the Plan's net position. Additionally, premium payments on behalf of retirees have been adjusted to reflect age-based claims cost.

Administrative Expenses — Administrative expenses of the Plan are paid for by the Plan.

4. INVESTMENTS

Investment Policy – The Plan's policy statement is issued for the guidance of fiduciaries, including the members of the Board of Managers, during the course of investing the assets of the Trust. The investments of the Trust will be made for the exclusive benefit of the Plan participants and their beneficiaries. Policy guidelines may be amended by the Board of Managers upon consideration of the advice and recommendations of investment professionals.

In order to have a reasonable probability of achieving the target return at an acceptable risk level, the Board has adopted the asset allocation policy outlined below. The actual asset allocation will be reviewed on, at least, annually. The following was the Board of Managers adopted asset allocation policy as at December 31, 2018.

Asset Class	Target Allocation (%)	Policy Benchark
Global Equity	35.0	MSCI ACWI
Fixed Income	18.0	Manager Specific
Global Asset Allocation*	30.0	50% World Equity/
		50% Citigroup WGBI unhedged
Absolute Return	12.0	Manager Specific
Real Assets	5.0	Manager Specific
Total	100.0	

* The Global Asset Allocation managers will invest across numerous liquid asset classes including: stocks, bonds, commodities, TIPS and REITs.

Investment Objective — The investment objective of the Plan is to achieve the actuarial return target with an appropriate risk position. **Investment Guidelines** — The Committee of the MTA Retiree Welfare Benefits Plan is in the process of creating investment guidelines with the Plan's investment advisor ("NEPC") that will address and execute investment management agreements with professional investment management firms to manage the assets of the Plan. However, the Committee of the MTA Retiree Welfare Benefits Plan allows the Plan to follow the Investment Guidelines established by the Board of Managers of Pensions for the MTA Defined Benefit Pension Plan.

Credit Risk — At December 31, 2018 and 2017 the following credit quality rating has been assigned by a nationally recognized rating organization:

	2018		2017	
Quality Rating	**Fair Value**	**Percentage of Fixed Income Portfolio**	**Fair Value**	**Percentage of Fixed Income Portfolio**
AAA	$ 20,278,622	12.32 %	$ 12,784,627	7.08 %
AA	19,107,945	11.61	15,820,019	8.77
A	6,172,007	3.75	29,348,972	16.27
BBB	18,148,858	11.03	22,960,712	12.73
BB	7,043,718	4.28	12,735,163	7.06
B	7,515,217	4.57	4,775,609	2.65
CCC	1,548,821	0.94	107,298	0.06
Not Rated	37,690,173	22.90	35,768,932	19.83
Credit risk debt securities	117,505,361	71.40	134,301,334	74.45
U.S. Government bonds	47,059,433	28.60	46,092,991	25.55
Total fixed income securities	164,564,794	100.00 %	180,394,325	100.00 %
Other securities not rated — equity, international funds and foreign corporate bonds	186,973,564		190,201,299	
Total investments	$ 351,538,358		$ 370,595,624	

Interest Rate Risk — Interest rate risk is the risk that changes in interest rates that will affect the fair value of an investment. Duration is a measure of sensitivity to 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. Modified duration is an indicator of bond price's sensitivity to a parallel 100 basis point change in interest rates.

Investment Fund	2018 Fair Value	2018 Duration	2017 Fair Value	2017 Duration
Allianz Structured Alpha	$ 19,946,008	0.13	$ 20,434,253	0.13
Baird Aggregate Bond Fund	26,964,426	5.87	27,046,146	5.98
Bridgewater Pure Alpha Major Markets Fund	13,922,247	(7.10)	13,014,796	(5.78)
Bridgewater All Weather Fund	39,301,664	8.30	41,399,870	7.70
GAM Unconstrained Bond Fund	5,847,591	0.10	17,005,448	(0.17)
Pimco All Asset Fund	32,883,226	3.41	34,606,248	3.45
Wellington Diversified Inflation Hedge Fund	14,004,652	0.40	15,659,837	0.70
Wellington Blended Emerging Markets Debt Fund	15,676,047	5.44	16,663,943	5.70
Wellington Opportunistic Investment Fund	27,903,228	1.40	31,359,989	1.70
	196,449,088		217,190,532	
Portfolio modified duration		3.21		3.15
Investments with no duration reported	155,089,270		153,405,092	
Total investments	$ 351,538,358		$ 370,595,624	

Credit Risk — For investments, custodial credit risk is the risk that in the event of the failure of the Trustee Bank, the Plan will not be able to recover the value of its investments or collateral securities that are in the possession of the outside party. Investment securities are exposed to credit risk if the securities are uninsured and are not registered in the name of the Trust.

Concentration of Credit Risk — The Plan places no limit on the amount the Trust may invest in any one issuer of a single issue. Individual investments held by the Plan that represents 5.0% or more of the Plan's net assets available for benefits at December 31, 2018 and 2017 is as follows:

Issuer	2018 % of Total Investments	2018 of Total Investments	2017 % of Total Investments	2017 of Total Investments
Artisan Global Opportunities Fund	14 %	$ 48,703,546	14 %	$ 53,435,866
Dreyfus Global Stock Fund	13	45,931,005	13	46,709,730
Hexavest World Equity Fund	12	41,550,013	12	44,836,161
Bridgewater All Weather Fund	11	39,301,664	11	41,399,870
PIMCO All Asset Fund	9	32,883,226	9	34,606,248
Wellington Opportunities Investment Fund	8	27,903,229	9	31,359,989
Baird Aggregate Bond Fund	8	26,964,426	7	27,046,146
Allianz Structured Alpha	6	19,946,008	6	20,434,253
GAM Unconstrained Bond Fund	*	*	5	17,005,448
Wellington Blended Emerging Markets Debt Fund	*	*	5	16,663,943

* Amounts did not meet the 5.0% threshold, in the current year and thus are not shown.

Foreign Currency Risk — Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. Some of the Plan's investment managers will have foreign currency exposure through holdings of foreign securities, currency derivatives or private investments whose revenue will be non-USD based. The Plan's foreign currency exposures as of December 31, 2018 and 2017 is as follows:

Foreign Currency Holdings in US $	**December 31, 2018**	**December 31, 2017**
Argentine Peso	$ 257,246	$ 498,826
Asia ex Japan	939,508	-
Australian Dollar	2,325,107	5,571,875
Bermudian Dollar	167,419	122,304
Brazilian Cruzeiro Real	2,564,109	1,380,421
Canadian Dollar	2,343,303	1,905,487
Chilean Peso	440,572	837,601
Colombian Peso	581,350	823,287
Croatia Kuna	136,068	18,816
Chinese Yuan Renminbi	2,080,702	4,716,754
Czech Republic Koruna	379,664	302,465
Danish Krone	3,013,341	2,824,620
Dominican Peso	3,288	-
Egyptian Pound	194,987	542,807
Euro	25,299,785	26,033,881
Ghanaian Cedi	23,514	44,993
Great Britain Pound Sterling	17,872,933	17,228,009
Hong Kong Dollar	8,395,606	7,774,433
Hungarian Forint	706,468	315,702
Iceland Krona	558,065	746,368
Indian Rupee	2,181,171	4,660,494
Indonesia Rupiah	1,324,838	1,491,734
Israeli Shekel	296,203	234,820
Japanese Yen	12,587,155	17,870,874
Kazakhstan Tenge	13,153	34,496
Malaysian Ringgit	487,897	1,524,929
Mauritian Rupee	111,613	87,808
Mexican New Peso	967,953	801,974
New Zealand Dollar	(589,369)	244,708
Norwegian Krone	724,443	542,156
Pakistani Rupee	312	-
Peruvian Nuevo Sol	342,236	523,413
Philippine Peso	215,305	71,797
Polish Zloty	811,638	1,336,209
Qatar Riyal	6,464	4,484
Romanian Leu	258,975	51,909
Russian Federation Rouble	1,266,540	1,099,840
Singapore Dollar	689,388	948,228
South African Rand	1,215,085	1,423,040
South Korean Won	1,659,753	3,004,232
Swedish Krona	902,973	4,378,202
Swiss Franc	9,937,130	7,424,175
Taiwanese New Dollar	429,289	1,987,086
Thai Baht	685,044	718,909
Turkish Lira	395,304	676,234
Ukrainian Hryvnia	23,018	-
UAE Dirham	9,757	18,326
Uruguayan Peso	6,577	110,238
Other	-	(106,794)
Total	$ 105,242,880	$ 122,852,172

In year 2015, the MTA Retiree Welfare Benefits Plan adopted GASB Statement No. 72 ("GASB 72"), *Fair Value Measurement and Application*. GASB 72 was issued to address accounting and financial reporting issues related to fair value measurements. For the years ended December 31, 2018 and 2017, the Plan reported all of its investments at Net Asset Value ("NAV") and thus fair value leveling measurement was not required.

Investments measured at NAV

	December 31, 2018	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Equity Securities:				
Commingled international equity funds	$ 41,550,013	$ -	Daily	None
International equity mutual funds	94,634,551	-	Daily, monthly	None
Total equity investments measured at the NAV	136,184,564	-		
Debt Securities				
Commingled debt funds	48,488,064		Daily, monthly, quarterly	None
Mutual funds	11,293,409		Daily	None
Total debt investments measured at the NAV	59,781,473	-		
Absolute return:				
Directional	19,946,008	-	Monthly	3-60 days
Global macro	13,922,247	-	Monthly	3-30 days
Global tactical asset allocation	60,786,454	-	Daily, monthly	3-30 days
Risk parity	39,301,664	-	Monthly	3-30 days
Total absolute return measured at the NAV	133,956,373	-		
Real assets				
Commingled commodities fund	14,004,652	-	Not eligible	N/A
Total real assets measured at the NAV	14,004,652	-		
Short term investments measured at the NAV	7,611,296			
Total investments measured at the NAV	$ 351,538,358	$ -		

Investments measured at NAV

	December 31, 2017	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Equity Securities:				
Commingled international equity funds	$ 44,836,161	$ -	Daily	None
International equity mutual funds	100,145,597	-	Daily, monthly	None
Total equity investments measured at the NAV	144,981,758	-		
Debt Securities				
Commingled debt funds	60,715,538		Daily, monthly, quarterly	None
Total debt investments measured at the NAV	60,715,538	-		
Absolute return:				
Directional	13,014,796	-	Monthly	3-60 days
Global macro	20,434,253	-	Monthly	3-30 days
Global tactical asset allocation	65,966,238	-	Daily, monthly	3-30 days
Risk parity	41,399,870	-	Monthly	3-30 days
Total absolute return measured at the NAV	140,815,157	-		
Real assets				
Commingled commodities fund	15,659,837	-	Not eligible	N/A
Total real assets measured at the NAV	15,659,837	-		
Short term investments measured at the NAV	8,423,334			
Total investments measured at the NAV	$ 370,595,624	$ -		

5. NET OPEB LIABILITY

The components of the net OPEB liability of the Plan for the years ended December 31, 2018 and 2017 were as follows (in thousands):

	December 31, 2018	December 31, 2017
Total OPEB liability	$ 19,933,888	$ 21,379,903
Fiduciary net position	351,380	370,352
Net OPEB liability	19,582,508	21,009,551
Fiduciary net position as a percentage of the total OPEB liability	1.76%	1.73%

The total OPEB liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate and actuarial assumptions below, and was then projected forward to the measurement date. Any significant changes during this period have been reflected as prescribed by GASB Statement No.74. Covered payroll is based on salary information provided as of the valuation date.

Additional Important Actuarial Valuation Information

	2018	2017
Valuation date	July 1, 2017	January 1, 2016
Measurement date	December 31, 2018	December 31, 2017
Reporting date	December 31, 2018	December 31, 2017
Actuarial cost method	Entry Age Normal	Entry Age Normal
Normal cost increase factor	4.50%	4.50%

Discount Rate - 4.10% per annum as of December31, 2018 (Bond Buyer General Obligation 20-Bond Municipal Bond Index) and 3.44% per annum as of December 31, 2017.

	2018	2017
Discount rate	4.10%	3.44%
Long-term expected rate of return, net of investment expense	6.50%	6.50%
Bond Buyer General Obligation 20-Bond Municipal Bond Index	4.10%	3.44%

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

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate and Healthcare Cost Trend Rate

The following presents the net OPEB liability of the Authority, calculated using the discount rate of 4.10 percent; as well as what the Authority’s net OPEB would be if it were calculated using a discount rate that is 1-percentage point lower (3.10 percent) or 1-percentage point higher (5.10 percent) than the current rate:

2018
(in thousands)

	1% Decrease 3.10%	Current Discount Rate 4.10%	1% Increase 5.10%
Net OPEB liability	$22,402,766	$19,582,508	$17,257,324

The following presents the net OPEB liability of the Authority, calculated using the current healthcare cost trend rates as well as what the Authority's net OPEB liability would be if it were calculated using trend rates that are 1 percentage point lower or 1 percentage point higher than the current trend rates.

2018
(in thousands)

	1% Decrease	* Current Trend Rate	1% Increase
Net OPEB liability	$16,727,628	$19,582,508	$23,171,172

* See Health Care Cost Trend Rates table on page 30 of report.

The following presents the net OPEB liability of the Authority, calculated using the discount rate of 3.44 percent; as well as what the Authority's net OPEB would be if it were calculated using a discount rate that is 1-percentage point lower (2.44 percent) or 1-percentage point higher (4.44 percent) than the current rate:

2017
(in thousands)

	1% Decrease 2.44%	Current Discount Rate 3.44%	1% Increase 4.44%
Net OPEB liability	$24,111,362	$21,009,551	$18,464,564

The following presents the net OPEB liability of the Authority, calculated using the current healthcare cost trend rates as well as what the Authority's net OPEB liability would be if it were calculated using trend rates that are 1 percentage point lower or 1 percentage point higher than the current trend rates.

2017
(in thousands)

	1% Decrease	* Current Trend Rate	1% Increase
Net OPEB liability	$17,896,890	$21,009,551	$24,938,260

* See Health Care Cost Trend Rates table on page 30 of report.

Calculation on Money-Weighted Rate of Return

The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of plan investments by the proportion of time they are available to earn a return during that period. External cash flows are determined on a monthly basis and are assumed to occur at the beginning of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash flow in each month. The money-weighted rate of return is calculated net of investment expenses.

2018 Schedule of Calculations of Money-Weighted Rate of Return

	Net External Cash Flows	Periods Invested	Period Weight	Net External Cash Flows With Interest
Beginning Value - January 1, 2018	$370,352,332	12.00	1.00	$351,435,005
Monthly net external cash flows:				
July	(4,664)	11.50	0.96	(4,435)
August	(4,664)	10.50	0.88	(4,454)
September	(4,664)	9.50	0.79	(4,475)
October	(4,664)	8.50	0.71	(4,494)
November	(4,664)	7.50	0.63	(4,512)
December	(4,664)	6.50	0.54	(4,534)
January	(4,664)	5.50	0.46	(4,553)
February	(4,664)	4.50	0.38	(4,572)
March	(4,664)	3.50	0.29	(4,594)
April	(4,664)	2.50	0.21	(4,613)
May	(4,664)	1.50	0.13	(4,632)
June	(4,664)	0.50	0.04	(4,654)
Ending Value - December 31, 2018				$351,380,483
Money-Weighted Rate of Return	-5.11%			

2017 Schedule of Calculations of Money-Weighted Rate of Return

	Net External Cash Flows	Periods Invested	Period Weight	Net External Cash Flows With Interest
Beginning Value - January 1, 2017	$322,981,973	12.00	1.00	$370,352,332
Monthly net external cash flows:				
January	-	12.00	1.00	-
February	-	11.00	0.92	-
March	-	10.00	0.83	-
April	-	9.00	0.75	-
May	-	8.00	0.67	-
June	-	7.00	0.58	-
July	-	6.00	0.50	-
August	-	5.00	0.42	-
September	-	4.00	0.33	-
October	-	3.00	0.25	-
November	-	2.00	0.17	-
December	-	1.00	0.08	-
Ending Value - December 31, 2017				$370,352,332
Money-Weighted Rate of Return	14.67%			

6. OPEB ACTUARIAL COSTS AND ASSUMPTIONS

Projections of benefits for financial reporting purposes are based on the substantive OPEB plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The MTA may not be obligated to provide the same types or levels of benefits to retirees in the future.

Actuarial Assumptions - The non-healthcare assumptions described below were adopted by the Authority based on experience analyses covering the period from January 1, 2006 – December 31, 2011 dated July 24, 2013 for members of the MaBSTOA Pension Plan and dated June 5, 2014 for members of the MTA DB Plan, in addition to a postretirement mortality study covering the period from January 1, 2011 – January 1, 2016 dated August 10, 2017. In addition, demographic assumptions are based on those used in the most recent NYCERS or NYSLRS actuarial valuations for MTA employees participating in these city-wide or state-wide pension plans.

Actuarial Cost Method — In accordance with GASB 74, the Entry Age Normal cost method was used for determining service costs and the actuarial accrued liability. Costs are determined as a level percent of pay.

Census data was collected as of July 1, 2017, which is the valuation date. Liabilities as of December 31, 2018 were determined using roll-forward methods, assuming no liability gains and losses. Future normal costs were assumed to increase 4.5% per year.

Changes since Prior Valuation — The discount rate has been changed from 3.44% as of December 31, 2017 to 4.10% as of December 31, 2018 due to changes in the applicable municipal bond index.

Various healthcare assumptions have been updated since the prior valuation including the per capita claim costs assumption, health cost trend assumption, and MTA Bus coverage elections.

Inflation Rate — 2.5% per annum compounded annually.

Per Capita Claim Costs ("PCCC") — For members that participate in NYSHIP, Empire PPO plan premium rates paid by Participating Agencies for 2017 were adjusted to reflect differences by age in accordance with Actuarial Standard of Practice No. 6. Premiums paid by Participating Agencies differ based on Medicare-eligible status whereas premiums paid by Participating Employers do not. The age adjustments were based on manual rates developed from Milliman's Commercial Rating Structures and Ages 65 and Over Health Cost Guidelines® (HCGs), Empire PPO plan design information, and actuarial judgment. Pre and post-65 NYSHIP premium rates were adjusted separately to be consistent with the way in which demographic factors were developed. These per capita costs may be loaded to account for Agency specific coverage election assumptions. The Medicare Part B premium is not included. For spouses and beneficiaries under age 65, the age-adjusted premiums shown below are increased by 15% to reflect the additional cost of covered children.

Age Adjusted Monthly NYSHIP Empire PPO Premiums

Age Group	Males	Females	Age Group	Males	Females
<50	1,167.85	1,538.98	65 - 69	491.78	462.70
50 - 54	1,144.45	1,299.15	70 - 74	547.98	504.57
55 - 59	1,291.31	1,337.64	75 - 79	578.32	527.62
60 - 64	1,609.78	1,548.15	80 - 84	590.78	540.02
			85+	597.13	547.75

For the self-insured medical and pharmacy plan administered by MTA New York City Transit, PCCCs were determined for 2017 based upon a combination of MTA claim experience, MTA census data, MTA plan design information, manual rates from the Milliman Commercial Rating Structures and Ages 65 and Over Health Cost Guidelines® ("HCGs"), and actuarial judgment.

MTA and the carrier provided Milliman with summarized medical (Aetna Basic and Aetna Select plans) and pharmacy claim experience (Employer Group Waiver Plan ("EGWP") and non-EGWP plans), split between those eligible and not eligible for Medicare, for covered retirees of MTA Bus Company, MTA New York City Transit, and MTA Staten Island Railway for 2017. Enrollment data was based on covered members provided by MTA as of the valuation date. The provided distribution of claims between those eligible and not eligible for Medicare were credibility weighted with the distribution of claims provided between that implied by the manual rates developed from the HCGs. This was done for several reasons: 2017 was the first year claims were provided separately for eligible and not eligible Medicare coverage, carriers were changed in 2017, and the actual enrollment associated with claims was not available. Milliman used the HCGs to develop PCCC relativity factors that varied by benefit, age and gender. Finally, per capita costs were adjusted by an administrative load.

EGWPPCCCs are based on the premium equivalents provided reflecting the Medicare subsidies available to this plan. Relativity factors varying by age and gender are based on Medicare slopes developed by Milliman.

In addition, PCCCs were developed for the Aetna Medicare plans based on the premium equivalents provided and reflecting relativity factors by age and gender based on Medicare slopes developed by Milliman. The following charts detail the monthly 2017 PCCCs used in this valuation.

Monthly Medical Per Capita Claim Cost

Age Group	Male Retirees	Female Retirees	Male Spouses	Female Spouses
		Aetna Basic		
Child	n/a	n/a	227.17	227.17
<50	795.75	1,060.40	503.03	629.70
50-54	795.67	897.48	610.03	697.88
55-59	897.49	916.36	704.62	772.68
60-64	1,127.29	1,066.06	908.14	872.68
65-69	151.03	158.05	151.03	158.05
70-74	179.55	177.52	179.55	177.52
75-79	205.64	197.09	205.64	197.09
80-84	229.30	217.78	229.30	217.78
85+	271.92	266.56	271.92	266.56
		Aetna Select		
Child	n/a	n/a	235.07	235.07
<50	840.17	1,129.55	526.95	666.11
50-54	832.76	950.36	635.88	736.48
55-59	937.71	966.96	733.83	813.58
60-64	1,176.37	1,121.03	945.56	915.67
		Aetna Medicare Option 1		
65-69	128.64	140.58	128.64	140.58
70-74	148.27	144.14	148.27	144.14
75-79	160.20	147.35	160.20	147.35
80-84	164.80	157.57	164.80	157.57
85+	171.11	154.35	171.11	154.35
		Aetna Medicare Option 2		
65-69	109.49	119.51	109.49	119.51
70-74	125.97	122.50	125.97	122.50
75-79	135.98	125.20	135.98	125.20
80-84	139.84	133.77	139.84	133.77
85+	145.14	131.07	145.14	131.07

Monthly Pharmacy Per Capita Claim Cost

Age Group	Male Retirees	Female Retirees	Male Spouses	Female Spouses
		Basic Rx Plan		
Child	n/a	n/a	59.54	59.54
<50	266.30	314.13	165.59	183.91
50-54	242.36	276.16	184.24	213.23
55-59	272.30	301.56	212.34	253.13
60-64	315.97	334.20	253.36	272.32
65-69	408.81	361.64	408.81	361.64
70-74	423.79	371.39	423.79	371.39
75-79	432.57	369.77	432.57	369.77
80-84	420.77	355.16	420.77	355.16
85+	369.71	302.36	369.71	302.36
		EGWP Rx Plan		
65-69	247.21	207.32	247.21	207.32
70-74	216.62	187.49	216.62	187.49
75-79	205.11	168.15	205.11	168.15
80-84	191.16	149.55	191.16	149.55
85+	167.18	116.02	167.18	116.02

Monthly Medicare Part B premiums were assumed to be $109 for 2017 and $134 for 2018.

Except for MTA New York City Transit, premium rates for dental and vision benefits were used as provided by the Agencies.

Health Care 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 trends reflect actual increases in premiums to Participating Agencies through 2018. These assumptions are combined with long-term assumptions for dental and vision benefits (4%) plus Medicare Part B reimbursements (4.5%) but not more than projected medical and pharmacy trends. The self-insured trend is applied directly for represented employees of MTA New York City NYC Transit, MTA Staten Island Railway and MTA Bus Company. Note that for purposes of estimating the impact of the Excise Tax, the NYSHIP trend for MTA Bridges and Tunnels reflects that certain represented members do not receive prescription drug coverage through NYSHIP. The following lists illustrative rates for the NYSHIP and self-insured trend assumptions (amounts are in percentages).

Health Care Cost Trend Rates

Fiscal Year	NYSHIP		TBTA No Rx		Self-Insured	
	< 65	>=65	< 65	>=65	< 65	>=65
2017 to 2018	8.5	8.2	7.5	4.9	6.8	9.1
2018 to 2019	6.2	5.5	5.8	3.1	6.2	5.3
2019 to 2020	5.8	5.3	5.6	3.9	5.8	5.2
2020 to 2021	5.5	5.2	5.3	4.4	5.5	5.2
2021 to 2022	7.2	5.1	5.1	5.1	11.1	5.1
2022 to 2023	6.1	5.1	5.1	5.1	6.0	5.1
2023 to 2024	6.1	5.0	5.0	5.0	5.9	5.0
2024 to 2025	5.9	5.0	5.0	5.0	5.8	5.0
2025 to 2026	5.9	5.0	5.0	5.0	5.8	5.0
2026 to 2027	5.8	4.9	5.0	4.9	5.7	4.9
2036 to 2037	5.6	5.0	5.9	5.0	5.5	5.0
2046 to 2047	5.4	5.9	5.6	4.9	5.3	4.9
2056 to 2057	5.1	5.4	5.2	4.8	5.1	5.2
2066 to 2067	4.8	5.0	4.9	4.6	4.8	4.8
2076 to 2077	4.2	4.3	4.2	4.0	4.1	4.5
2086 to 2087	4.1	4.2	4.2	4.0	4.1	4.4
2096 to 2097	4.1	4.2	4.2	4.7	4.1	4.4

For purposes of applying the Entry Age Normal cost method, the healthcare trend prior to the valuation date are based on the ultimate rates, which are 4.1% for medical and pharmacy costs prior to age 65, 4.2% for NYSHIP costs at age 65 and later (4.6% for certain MTA Bridges and Tunnels represented members), and 4.3% for self-insured medical and pharmacy costs at age 65 and later.

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 as at July 1, 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 Company	Total
Active Members									
Number	50,309	7,394	6,720	1,423	1,867	N/A	294	4,040	72,047
Average Age	49.1	44.6	44.9	47.3	46.4	N/A	43.0	47.4	48.2
Average Service	13.4	12.4	12.1	14.2	12.6	N/A	11.0	11.2	13.4
Retirees									
Single Medical Coverage	13,426	650	455	633	217	94	29	915	16,419
Employee/Spouse Coverage	17,900	1,900	1,105	713	442	190	71	737	23,058
Employee/Child Coverage	1,145	114	74	55	26	20	3	28	1,465
No Medical Coverage	814	2,473	1,495	20	9	308	27	293	5,439
Total Number	33,285	5,137	3,129	1,421	694	612	130	1,973	46,381
Average Age of Retiree	72.1	69.1	70.0	69.9	66.0	68.7	65.1	70.9	71.5
Total Number with Dental	7,562	922	598	461	627	56	47	132	10,405
Total Number with Vision	29,345	922	598	461	627	56	100	1,663	33,772
Total No. with Supplement	25,070	2,005	100	856	-	458	96	1,472	30,057
Average Monthly Supplement Amount (Excluding Part B Premium)	$ 32	$ 246	$ 100	$ 211	$ -	N/A	$ 77	$ 25	$ 50
Total No. with Life Insurance	6,935	4,699	1,529	403	606	507	97	1,476	16,252
Average Life Insurance Amount	$ 2,521	$23,205	$3,184	$5,534	$5,000	$9,714	$3,021	$12,929	$ 9,215

* MTA LI Bus had 143 vestees as of date of valuation

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 NYSHIP HIP plan and for the MTA Metro-North Railroad a percentage is assumed to elect ConnectiCare, an HMO plan.

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. Under age 65 spouses of over age 65 retirees are assumed to have elected the Aetna Select plan if the retiree elected Aetna Option 1 or Option 2. 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 health annuitant rates are projected on a generational basis using Scale AA. As a generational table, it reflects mortality improvements both before and after the measurement date. The post-retirement mortality assumption is based on an experience analysis covering the period from January 1, 2011 to December 31, 2015 for the MTA-sponsored pension plans.

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

Vestee Coverage — For members that participate in NYSHIP, Vestees (members who have terminated employment, but are 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. Vestees 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 45/75 Valuation report provided to Participating Employers of NYSHIP. These percentages were also applied to current vestees based on age at valuation date.

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

7. TRUSTEE, CUSTODIAL, AND OTHER PROFESSIONAL SERVICES

The Plan and the Trust are administered by the MTA, including the day-to-day administration of the health insurance program. JP Morgan Chase, the trustee and custodian makes payments to health insurers and to welfare funds for retiree benefits, and reimbursements of retiree Medicare Part B premiums, as directed by the MTA. The MTA OPEB Committee is advised by NEPC with respect to the investment of Plan assets. Actuarial services were provided to the Plan by Milliman Inc.

8. SUBSEQUENT EVENTS

As of July 23, 2019, the Plan had redeemed its entire investment in the GAM Unconstrained Bond Fund, amid allegations of misconduct by a portfolio manager. The Plan suffered no loss on its investment.

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REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE I

METROPOLITAN TRANSPORTATION AUTHORITY
OTHER POSTEMPLOYMENT BENEFITS PLAN

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF CHANGES IN THE EMPLOYERS' NET OPEB LIABILITY AND RELATED RATIOS
(in thousands)

		2018	2017
Total OPEB liability:			
Service cost	$	1,011,981	876,723
Interest		758,494	757,860
Changes of benefit terms		8,543	24,446
Differences between expected and actual experience		(569,165)	(44,082)
Changes of assumptions		(1,964,746)	921,007
Benefit payments and withdrawals		(691,122)	(650,994)
Net change in total OPEB liability		(1,446,015)	1,884,960
Total OPEB liability – beginning		21,379,903	19,494,943
Total OPEB liability – ending (a)		19,933,888	21,379,903
Plan fiduciary net position:			
Employer contributions		691,122	650,994
Member contributions		-	-
Net investment income		(18,916)	47,370
Benefit payments and withdrawals		(691,122)	(650,994)
Administrative expenses & Transfer to investments		(56)	-
Net change in plan fiduciary net position		(18,972)	47,370
Plan fiduciary net position – beginning		370,352	322,982
Plan fiduciary net position – ending (b)		351,380	370,352
Employer's net OPEB liability – ending (a)-(b)	$	19,582,508	21,009,551
Plan fiduciary net position as a percentage of the total OPEB liability		1.76%	1.73%
Covered payroll	$	5,394,332	5,041,030
Employer's net OPEB liability as a percentage of covered payroll		363.02%	416.77%

In accordance with GASB No. 74, paragraph 39, such information was not readily available for periods prior to 2017.

METROPOLITAN TRANSPORTATION AUTHORITY
OTHER POSTEMPLOYMENT EMPLOYMENT

SCHEDULE II

Required Supplementary Information (Unaudited)
Schedule of Employer Contributions
(in thousands)

Fiscal Year Ending December 31	Actuarially Determined Contribution	* Actual Employer Contribution	Contribution Deficiency (Excess)		Covered Payroll	Actual Contribution as a % of Covered Payroll
2009	N/A	$ -	N/A		$ -	N/A
2010	N/A	-	N/A		-	N/A
2011	N/A	-	N/A		-	N/A
2012	N/A	-	N/A		-	N/A
2013	N/A	-	N/A		-	N/A
2014	N/A	-	N/A		-	N/A
2015	N/A	-	N/A		-	N/A
2016	N/A	-	N/A		-	N/A
2017	N/A	650,994	N/A	**	5,041,030	12.91%
2018	N/A	691,122	N/A		5,394,332	12.81%

* Actual Employer Contribution includes the implicit rate of subsidy adjustment.

** In accordance with GASB No. 74, paragraph 39, such information was not readily available for periods prior to 2017.

METROPOLITAN TRANSPORTATION AUTHORITY **SCHEDULE III**
OTHER POSTEMPLOYMENT PLAN

Required Supplementary Information (Unaudited)
Schedule of Investment Returns

The following table displays annual money-weighted rate of return, net of investment expense.

Fiscal Year Ending December 31	Net Money-Weighted Rate of Return
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	N/A
2014	N/A
2015	N/A
2016	N/A
2017	14.67%
2018	-5.11%

In accordance with GASB No. 74, paragraph 39, such information was not readily available for periods prior to 2017.