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MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

(A Component Unit of the Massachusetts Department of Transportation)

Financial Statements, Required Supplementary Information and Supplementary Information

June 30, 2016 and 2015

(With Independent Auditors' Report Thereon)

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
(A Component Unit of the Massachusetts Department of Transportation)

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Independent Auditors' Report

The Board of Directors
Massachusetts Bay Transportation Authority:

Report on the Financial Statements

We have audited the accompanying financial statements of the Massachusetts Bay Transportation Authority, a component unit of the Massachusetts Department of Transportation, which comprise the statements of net position as of and for the years ended June 30, 2016 and 2015, and the related statements of revenue, expenses and changes in net position, and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; 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 and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the 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 entity'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 entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the net position of the Massachusetts Bay Transportation Authority as of June 30, 2016 and 2015, and the respective changes in its net position and its cash flows thereof for the years then ended, in accordance with U.S. generally accepted accounting principles.

Emphasis of Matter

Adoption of New Accounting Pronouncement

In 2016, the Authority adopted Governmental Accounting Standards Board Statement No. 72, *Fair Value Measurement and Application*. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

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

Supplementary and Other Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Authority's basic financial statements. The Supplementary Information - Metropolitan Boston Transit Parking Corporation Schedule of Debt Service Coverage Schedule listed in the accompanying table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The Supplementary Information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Supplementary Information is fairly stated in all material respects in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 15, 2016 on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws and regulations, contracts, grant agreements, and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

KPMG LLP

December 15, 2016

Introduction

The following discussion and analysis of the financial performance and activity of the Massachusetts Bay Transportation Authority (the "Authority") is intended to provide an introduction to and an overview and analysis of the basic financial statements of the Authority for the fiscal year ended June 30, 2016 ("FY16") with selected comparative information for the fiscal year ended June 30, 2015 ("FY15") and for the fiscal year ended June 30, 2014 ("FY14"). The management of the Authority has prepared this discussion, and it should be read in conjunction with the financial statements and the notes thereto, which follow this section.

The Massachusetts Bay Transportation Authority (the Authority) was originally created in 1964 as a body politic and corporate and a political subdivision of the Commonwealth of Massachusetts (the Commonwealth) to finance and operate mass transportation facilities within, and, to a limited extent, outside of its territorial area of 175 cities and towns and is authorized to enter into agreements for providing mass transportation service by private companies, including railroads. The 175 cities and towns are grouped into three categories, based upon the weighting of each member's allocable percentage of population and assessments: (i) the inner 14 cities and towns; (ii) the outer 51 cities and towns; and (iii) the other 110 served communities.

The Authority is governed and its corporate powers exercised by the board of directors (the "Board of Directors" or "Board") of the Massachusetts Department of Transportation ("MassDOT"). However, as a result of the Control Board Act, Chapter 46 of the Acts of 2015 of the Commonwealth, effective July 17, 2015, the MBTA Fiscal Management and Control Board ("FMCB") was created within the Massachusetts Department of Transportation and reports to the Secretary of Transportation (the "Secretary"). The Control Board is afforded all powers, responsibilities and obligations relative to the MBTA that are vested in the Board, with certain limited exceptions.

The FMCB consists of five members appointed by the Governor. Three members shall be members of the Board, one shall have experience in transportation finance and one shall have experience in mass transit operation. The FMCB will continue until June 30, 2018; unless extended an additional two years if, prior to June 30, 2018, the FMCB finds in a recommendation to the Governor that such two-year period is in the best interest of the public and necessary to achieve operational stability and to establish performance metrics for the Authority. Upon such recommendation, the Governor may approve the extension but in no event shall the FMCB continue beyond June 30, 2020.

As part of its Fiscal 2000 annual appropriations act, Chapter 127 of the Acts of 1999 of the Commonwealth, as amended ("Chapter 127") or the "Forward Funding Legislation", the Commonwealth repealed and restated the Prior Act effective July 1, 2000. The Prior Act as restated by Section 151 of Chapter 127, together with Section 35T of Chapter 10 of Massachusetts General Laws, also enacted as part of Chapter 127, as amended, are collectively referred to herein as the "Enabling Act".

Under the Enabling Act, the Authority receives a dedicated revenue stream consisting of the Assessments and the Dedicated Sales Tax collectively, the "Dedicated Revenues". The Dedicated Sales Tax is equal to the greater of the base revenue amount (as defined in the Enabling Act) and the amount raised by a 1% statewide sales tax, plus \$160,000 annually, all to be funded from existing sales tax receipts, subject to upward adjustment under certain circumstances set forth in the Enabling Act.

Since 2006, aggregate Assessments are adjusted annually for inflation but will not be permitted to increase by more than 2.5% per year. Under the Enabling Act, the Authority is required to meet all of its operating and capital expenditures from Dedicated Revenues, federal assistance and revenues generated from operation of the Authority's system, including without limitation fare revenues and non-fare revenues (e.g. parking and advertising revenues). However, under the Enabling Act, the Authority's failure to provide transportation services at current levels would not affect the Commonwealth's or the assessed cities' and towns' obligation or ability to provide the Dedicated Revenues.

Financial Statements

Our financial statements are prepared using proprietary fund (enterprise fund) accounting that uses the same basis of accounting as private-sector business enterprises. The Authority is operated under one enterprise fund. Under this method of accounting, an economic resources measurement focus and an accrual basis of accounting is used.

Revenue is recorded when earned and expenses are recorded when incurred. The financial statements include statements of net assets, statements of revenues, expenses and changes in net assets, and statements of cash flows. These are followed by notes to the financial statements. In addition to the financial statements, this report also contains required supplementary information pertaining to the retirement and OPEB plans of the Authority.

> The Statements of Net Position present information on the Authority's assets and deferred ouflows and liabilities and deferred inflows, with the difference between the two reported as net position. Over time, increases or decreases in net assets may serve as a useful indicator of whether the financial position of the Authority is improving or deteriorating.
>
> The Statements of Revenue, Expenses and Changes in Net Position report the operating revenues and expenses and nonoperating revenues and expenses of the Authority for each fiscal year with the difference – the increase in net position – being combined with any capital grants to determine the net change in position for the fiscal year. That change combined with the net position from the end of the previous year equals the net assets at the end of the fiscal year.
>
> The Statements of Cash Flows report cash and cash equivalent activities for each fiscal year resulting from operating activities, capital and related financing activities, noncapital and related financing activities and investing activities. The net result of these activities added to the beginning of the year balance of cash and cash equivalents total to the cash and cash equivalent balance at the end of the fiscal year.

Financial Highlights – 2016 to 2015

- The Authority's net position at June 30, 2016 was $2,523,274, an increase from the prior year of $172,433 primarily due to increases in transportation revenue, intergovernmental revenues and interest and other nonoperating income. These increases were offset by swap termination payments of $78,865 and increases in operating expense of $51,569 due to increases in pension, commuter rail and depreciation expenses.
- Total bonds and notes payable outstanding at June 30, 2016 and 2015 were $5,322,277 and $5,328,607, respectively. During fiscal 2016, the Authority, in October 2015, issued $358,405 of 2015 Sales Tax

bonds, Series A in the amount of $177,855 which will be used to fund new projects and Series B in the amount of $180,550 which was used to refund certain outstanding debt.

- During the year, the Authority's operating revenues, principally transportation revenues, totaled $693,180 as compared to operating revenues of $661,522 in fiscal year 2015, an increase of $31,658.
- Total nonoperating revenues which consists of sales tax receipts and federal and state operating grants increased by $81,657 from $1,289,882 in 2015 to $1,371,539 in 2016. The increase was primarily due to an increase in intergovernmental revenues including dedicated sales tax revenue, contract assistance and local assessments of $51,641. The nonoperating expenses increased $72,061 due to interest rate swap termination payments of $78,865 offset by a reduction in interest expense of $6,804.
- Total operating expenses of $2,107,591 in 2016 increased by $51,569 as compared with 2015. The increase in operating expenses from 2015 to 2016 is attributable to increases in pension expense, depreciation expense and commuter rail expenses of $38,080, $30,619 and $15,715, respectively offset by a decrease in postemployment benefit expenses of $29,511.
- As of June 30, 2016, the Authority's capital assets had a depreciated value of $9,139,550, made up of $15,906,322 in historical cost offset by $6,766,772 in accumulated depreciation. During 2016 the Authority spent $677,055 for additions to the system.

Financial Highlights – 2015 to 2014

- The Authority's net position at June 30, 2015 was a deficit of $2,350,841, a decrease from the prior year balance of $2,845,059, primarily due to the increase in both pension and postretirement health liabilities of $823,787 and $143,234, respectively. During 2015, the Authority implemented GASB Statement No. 68 which resulted in the restatement (a decrease) of net position as of July 1, 2014 by $682,374.
- Total bonds and notes payable at June 30, 2015 of $5,328,607 decreased from $5,499,989 at June 30, 2014 due principally to scheduled repayments of $240,295. No new bonds were issued in fiscal 2015.
- During fiscal year 2015, the Authority's operating revenues, principally transportation revenues, totaled $661,522 as compared to operating revenues of $643,389 in fiscal year 2014.
- Total nonoperating revenues which consists of sales tax receipts and federal and state operating grants were $1,289,882 and $1,283,777 in 2015 and 2014, respectively.
- Total expenses totaled $2,056,022 in 2015 as compared with $1,921,724 in 2014. The increase in operating expenses is attributable principally to increases in wages of $38,177, pension and post employment health costs of $46,963, material and supplies of $42,181. Interest expense on the Authority's bonds decreased slightly to $274,308 in 2015 from $278,057 in 2015.
- As of June 30, 2015, the Authority's capital assets had a depreciated value of $8,888,646, made up of $15,261,845 in historical cost offset by $6,373,199 in accumulated depreciation. During 2015 the Authority spent $722,253 for additions to the system.

(Amounts in Thousands)

Condensed Financial Information

Condensed financial information as of and for the years ended June 30, 2016, 2015, and 2014 is as follows:

Summary Statements of Net Position:

		June 30		
		2016	**2015**	**2014**
Current and other assets and deferred outflows	$	1,897,611	1,738,897	1,724,688
Capital assets, net		9,139,550	8,888,646	8,562,929
Total assets and deferred outflows		11,037,161	10,627,543	10,287,617
Current liabilities		863,840	851,966	831,172
Long-term liabilities and deferred inflows		7,650,047	7,424,736	6,611,386
Total liabilities and deferred inflows		8,513,887	8,276,702	7,442,558
Net assets:				
Invested in capital assets, net of related debt		4,523,401	4,083,287	3,791,675
Restricted		19,533	19,475	19,438
Unrestricted		(2,019,660)	(1,751,921)	(966,054)
Total net position	$	2,523,274	2,350,841	2,845,059

Summary Statements of Revenue, Expenses and Changes in Net Position:

		June 30		
		2016	**2015**	**2014**
Operating revenue:				
Revenue from transportation	$	619,214	602,627	576,686
Other		73,966	58,895	66,703
Total operating revenues		693,180	661,522	643,389
Operating expenses:				
Transportation services		908,216	896,063	804,086
Other operating expenses		779,601	770,804	735,672
Total operating expenses, excluding depreciation		1,687,817	1,666,867	1,539,758
Depreciation and amortization		419,774	389,155	381,966
Total operating expenses, including depreciation		2,107,591	2,056,022	1,921,724
Operating loss		(1,414,411)	(1,394,500)	(1,278,335)
Net nonoperating revenue		1,025,170	1,015,574	1,005,720
Loss before capital grants		(389,241)	(378,926)	(272,615)
Capital grants and contributions		561,674	567,082	502,722
Increase in net assets		172,433	188,156	230,107
Beginning of year net position*		2,350,841	2,162,685	2,614,952
End of year net position	$	2,523,274	2,350,841	2,845,059

*restated as of July 1, 2014. Fiscal year 2014 amounts were not restated.

The information contained in the condensed financial information table is used as the basis for the following discussion regarding the Authority's financial activities for the fiscal years ended June 30, 2016, 2015, and 2014.

Financial Highlights for the fiscal years ended June 30, 2016 and 2015

- The Authority ended the years June 30, 2016 and 2015 with a net position of $2,523,274 and $2,350,841 of which $4,523,401 and $4,083,287 represented the amount invested in capital assets, net of related debt, and $(2,019,660) and $(1,751,921) was unrestricted, respectively. The net position increased by $172,433 and decreased $494,218 in the years ended 2016 and 2015, respectively. The decrease in net position in 2015 is attributable to the adoption of GASB No. 68 *Employer Accounting for Pensions*, which resulted in a reduction of the July 1, 2014 net position of $682,374.

- The Authority incurred an operating loss for the years ended June 30, 2016 and 2015 of $1,414,411 and $1,394,500, respectively. The operating losses were offset in accordance with the Enabling Act which provides the Authority a dedicated revenue stream consisting of the assessments on the communities in the Authority's service area and a Dedicated Sales Tax. For years ended June 30, 2016 and 2015 the Authority recognized $986,274 and $970,637 of sales tax revenues from the Commonwealth of Massachusetts. Local assessments on cities and towns within the Authority's service area accounted for $162,883 and $160,159 in nonoperating revenue in 2016 and 2015, respectively. Adding to the operating loss was interest expense, net of investment and other income of $202,079 and $239,398, respectively, in 2016 and 2015.

- The Authority ended the years June 30, 2016 and 2015 with cash and investments of $1,229,021 and $1,097,143, respectively. However, only $272,459 and $307,209 of this amount at June 30, 2016 and 2015, respectively, is available for operations as the bulk of these assets are restricted for specific purposes and unavailable for the Authority's general use.

- The statements of cash flows identify the sources and uses of cash for each fiscal year. Cash and cash equivalents decreased by $33,039 in fiscal 2016 and increased by $47,664 in fiscal 2015. The decrease in fiscal year 2016 is due to the increased cash used for operations and capital improvements and an interest rate swap termination payment. The decrease was offset by an increase from sales tax and local assessments. The increase in fiscal year 2015 is due principally to increases in sales tax and local assessment that offset the cash used for operations and capital improvements.

Financial Highlights for the fiscal years ended June 30, 2015 and June 30, 2014

- The Authority ended the years June 30, 2015 and 2014 with a net position balance of $2,350,841 and $2,845,059 of which $4,083,287 and $3,791,675 represented the amount invested in capital assets, net of related debt, and $(1,751,921) and $(966,054) was unrestricted, respectively. The net position decreased $494,218 and increased $230,107 in the years ended 2015 and 2014, respectively. The decrease in net position in 2015 is attributable to the adoption of GASB No. 68, *Employer Accounting for Pensions* which resulted in a reduction of the July 1, 2014 net position of $682,374.

- The Authority incurred an operating loss for the years ended June 30, 2015 and 2014 of $1,394,500 and $1,278,335, respectively. The operating losses were offset in accordance with the Enabling Act which provides the Authority a dedicated revenue stream consisting of the assessments on the communities in the Authority's service area and a Dedicated Sales Tax. For fiscal years ended June 30, 2015 and 2014 the Authority recognized $970,637 and $799,295 of sales tax revenues from the Commonwealth of Massachusetts. Local assessments on cities and towns within the Authority's service area accounted for $160,159 and $157,206 in nonoperating revenue in fiscal 2015 and 2014, respectively. Adding to the operating loss was interest expense, net of investment and other income of $239,398 and $227,888, respectively, in 2015 and 2014.

(Amounts in Thousands)

- The Authority ended the fiscal years June 30, 2015 and 2014 with cash and investments of $1,097,143 and $1,194,491, respectively. However, only $307,209 and $294,938 of this amount at June 30, 2015 and 2014, respectively, is available for operations as the bulk of these assets are restricted for specific purposes and unavailable for the Authority's general use.

- The statements of cash flows identify the sources and uses of cash for each fiscal year. Cash and cash equivalents increased by $47,664 in fiscal 2015 and increased by $28,384 in fiscal 2014. The increase in fiscal year 2015 is due principally to increases in sales tax and local assessment receipts that offset the cash used in operations. The increase in fiscal 2014 resulted primarily from the receipt of sales taxes and local assessments of $1,223,790. This increase was offset by $764,878 of cash used for operations and the cash used for financing of $499,429.

Operating Revenue

The following charts show the major sources of operating revenue for the fiscal years ended June 30, 2016, 2015, and 2014:

	2016	Percent of Total	2015	Percent of Total	2014	Percent of Total
Bus	$ 105,454	15%	$ 102,609	16%	$ 100,308	16%
Subway	298,197	43%	299,883	45%	286,906	45%
Commuter Rail	199,488	29%	185,096	28%	174,680	27%
Other Passenger	16,075	2%	15,039	2%	14,792	2%
Other Operating	73,966	11%	58,895	9%	66,703	10%
	$ 693,180	100%	$ 661,522	100%	$ 643,389	100%

Passenger revenues make up 89%, 91% and 90% of the total operating revenues in fiscal 2016, 2015 and 2014, respectively. The Authority continues to work on increasing ridership through new equipment purchases, station upgrades and system expansion and will continue to pursue its policy of maximizing nonfare revenue opportunities.

(Amounts in Thousands)

Operating Expenses

The following charts show the major sources of operating expenses for the fiscal years ended June 30, 2016, 2015, and 2014:

		2016	Percent of Total		2015	Percent of Total		2014	Percent of Total
Wages and benefits	$	908,216	43%	$	896,063	44%	$	804,086	42%
Commuter rail		500,013	24%		484,298	24%		496,479	26%
Depreciation		419,774	20%		389,155	19%		381,966	20%
Material and supplies		247,380	12%		256,441	12%		214,340	11%
Other Operating		32,208	1%		30,065	1%		24,853	1%
	$	2,107,591	100%	$	2,056,022	100%	$	1,921,724	100%

As in previous years, wages and benefits make up the largest portion of operating expenses. This is common in the public transportation industry as the provision of service is extremely labor intensive. Due to the significant investments the Authority has in capital assets, depreciation continues to be a large operating expense. Unlike the other expenses listed, depreciation is not a cash expense. The Authority has and continues to pursue ways to reduce costs without impacting service.

Capital Assets

The Authority's capital assets as of June 30, 2016, 2015, and 2004 amounted to $9,139,950 and $8,888,646, and $8,562,929 (net of accumulated depreciation), respectively. This investment in capital assets includes land, construction work in progress, ways and structures and buildings and equipment.

Net capital assets consisted of the following for the fiscal years ended June 30:

		2016	2015	2014
Land	$	384,946	375,975	364,594
Construction work in progress		1,232,231	970,116	863,649
Ways and structures		6,318,513	6,372,335	6,317,201
Buildings and equipment		1,203,860	1,170,220	1,017,485
	$	9,139,550	8,888,646	8,562,929

The Authority primarily acquires its assets with the proceeds from federal capital grants and revenue bonds. Station improvements, new equipment purchases and system expansion are all part of the Authority's capital investment program. Commitments on approved capital asset construction projects were $729,563, $357,213, and $507,864 for the years ended June 30, 2016, 2015, and 2014, respectively. Commitments to purchase new transportation equipment were $577,312, $585,167, and $168,522 as of June 30, 2016, 2015, and 2014, respectively.

(Amounts in Thousands)

Debt

Bonds and notes outstanding for the following years:

		2016	2015	2014
General Transportation System bonds	$	206,465	229,915	296,640
Revenue bonds		4,315,627	4,271,457	4,367,429
Boston Metropolitan District bonds		—	—	2,010
MBTPC bonds		304,585	304,585	304,585
Commercial Paper		67,300	94,350	101,025
BAB's		428,300	428,300	428,300
	$	5,322,277	5,328,607	5,499,989

The total amount for these categories of debt decreased by $6,330 and $171,382, and increased by $24,341 for the fiscal years ended June 30, 2016, 2015, and 2014, respectively.

The Authority issued Senior Sales Tax 2015 Series A in the amount of $177,855 and Series B in the amount of $180,550. Principal is payable on July 1, 2019 through July 1, 2045. The first interest payment on these bonds was January 1, 2016. The Series 2015A sales tax bonds were issued for use to finance system-wide improvements, vehicle replacements and other capital projects. The 2015B sales tax bonds, along with other funds on hand, were issued to refund $57,880 of 2006 Series C Senior Sales Tax Bonds, $55,500 of 2005 Series A Assessment Bonds, and $83,035 of $2008 Series A Assessment Bonds.

Subsequent to year end, in July 2016, the MBTA issued $119,260 2016 Series A Assessment Bonds and $217,694 2016 Series A Senior Sales Tax (Capital Appreciation Bonds). These bonds were issued to refund debt outstanding at June 30, 2016.

The Authority issued no new bonds in fiscal year 2015, but did issue $60,000 in Commercial Paper.

In fiscal year 2014, the Authority issued the 2014 Series A Senior Sales Tax Bonds in the amount of $200,000 and issued commercial paper notes in the amount of $40,000.

Requests for Information

This financial report is intended to provide an overview of the finances of the Authority for those with an interest in this organization. Questions concerning any information within this report may be directed to the Chief Administrator and/or Chief Financial Officer of the Authority.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
(A Component Unit of the Massachusetts Department of Transportation)

Statements of Net Position

June 30, 2016 and 2015

(Dollars in thousands)

		2016	2015
Assets and Deferred Outflows of Resources			
Current assets:			
Unrestricted cash and temporary cash investments (note 3)	$	272,459	307,209
Restricted cash and temporary cash investments (note 3):			
Bond construction accounts		51,760	45,795
Stabilization accounts		19,533	19,475
Other accounts		25,156	29,468
Accounts receivable:			
Commonwealth of Massachusetts		99,589	104,820
Federal grants		19,119	17,924
Other trade, net		26,836	35,125
Materials and supplies		35,157	34,070
Prepaid expenses		2,880	3,153
Total current assets		552,489	597,039
Noncurrent assets:			
Restricted cash and investments accounts (note 3):			
Bond construction accounts		176,541	35,124
Lease deposits		63,900	53,116
Bond reserve accounts (note 8)		619,672	606,956
Total restricted cash and investments accounts		860,113	695,196
Net investment in direct financing lease (note 5)		24,601	23,472
Capital assets, at cost (notes 6, 7, and 9):			
Transportation property, being depreciated		14,289,145	13,915,754
Transportation property, not being depreciated		1,617,177	1,346,091
Less accumulated depreciation		(6,766,772)	(6,373,199)
Capital assets, net		9,139,550	8,888,646
Total noncurrent assets		10,024,264	9,607,314
Total assets		10,576,753	10,204,353
Deferred outflows of resources:			
Deferred outflows from debt instruments		194,223	198,563
Deferred outflows from derivative instruments (note 8c)		36,457	102,504
Deferred outflows from pension plans (note 13)		229,728	122,123
Total deferred outflows of resources		460,408	423,190
Total assets and deferred outflows of resources	$	11,037,161	10,627,543

See accompanying notes to financial statements.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
(A Component Unit of the Massachusetts Department of Transportation)

Statements of Net Position

June 30, 2016 and 2015

(Dollars in thousands)

		2016	2015
Liabilities and Deferred Inflows of Resources			
Current liabilities:			
Current maturities of bonds and notes payable (note 8)	$	344,260	325,125
Current capital lease obligations (note 6)		4,026	4,427
Accounts payable		263,176	285,189
Due to Commonwealth (note 15)		15,583	—
Accrued liabilities:			
Payroll and vacation		44,783	44,739
Interest		130,449	132,020
Injuries and damage claims, workers' compensation claims, and other (note 10)		61,563	60,466
Total current liabilities		863,840	851,966
Noncurrent liabilities, less current maturities:			
Bonds payable, net (note 8)		5,311,931	5,309,625
Obligations under capital leases (note 6)		67,956	61,246
Accrued liabilities (notes 10 and 11)		86,601	103,138
Pension liability (note 13)		1,120,283	962,111
Other postemployment benefits (note 14)		976,553	845,127
Liability for derivative instruments (note 8)		46,075	113,246
Unearned revenue		30,652	29,969
Total noncurrent liabilities		7,640,051	7,424,462
Total liabilities		8,503,891	8,276,428
Deferred inflows of resources:			
Deferred inflows from debt instruments		208	223
Deferred inflows from pension plans (note 13)		9,788	51
Total deferred inflows of resources		9,996	274
Total liabilities and deferred inflows of resources	$	8,513,887	8,276,702
Net Position			
Net investment in capital assets		4,523,401	4,083,287
Restricted		19,533	19,475
Unrestricted		(2,019,660)	(1,751,921)
Total net position	$	2,523,274	2,350,841

See accompanying notes to financial statements.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
(A Component Unit of the Massachusetts Department of Transportation)

Statements of Revenue, Expenses, and Changes in Net Position

Years ended June 30, 2016 and 2015

(Dollars in thousands)

	2016	2015
Operating revenue:		
Revenue from transportation	$ 619,214	602,627
Other	73,966	58,895
Total operating revenue	693,180	661,522
Operating expenses:		
Wages and related employee benefits:		
Wages	495,172	491,949
Medical and dental insurance	63,255	70,302
Other postemployment benefits	163,554	193,065
Health and welfare expenditures	9,472	7,765
Pensions	135,479	97,399
Social security taxes	41,920	40,912
Workers' compensation	13,349	14,581
Other	8,843	869
Capitalized costs	(22,828)	(20,779)
Total wages and related employee benefits	908,216	896,063
Other operating expenses:		
Depreciation and amortization	419,774	389,155
Materials, supplies, and services	247,380	256,441
Injuries and damages	20,343	23,435
Commuter railroad and local subsidy expenses (note 12)	500,013	484,298
Other	11,865	6,630
Total other operating expenses	1,199,375	1,159,959
Total operating expenses	2,107,591	2,056,022
Operating loss	(1,414,411)	(1,394,500)
Nonoperating revenue (expense):		
Dedicated sales tax revenue (note 4)	986,274	970,637
Contract assistance – Commonwealth of Massachusetts	155,833	122,553
Dedicated local assessments (note 4)	162,883	160,159
Fair value change in investment derivatives	1,124	1,623
Interest rate swap termination payments	(78,865)	—
Other nonoperating income	36,117	17,140
Interest income	29,308	17,770
Interest expense	(267,504)	(274,308)
Nonoperating revenue, net	1,025,170	1,015,574
Loss before capital grants and contributions	(389,241)	(378,926)
Capital grants and contributions	561,674	567,082
Increase in net position	172,433	188,156
Beginning of year, net position	2,350,841	2,845,059
Restatement to comply with adoption of GASB Statement No. 68 (note 13)	—	(682,374)
End of year, net position	$ 2,523,274	2,350,841

See accompanying notes to financial statements.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
(A Component Unit of the Massachusetts Department of Transportation)

Statements of Cash Flows

Years ended June 30, 2016 and 2015

(Dollars in thousands)

		2016	2015
Cash flows from operating activities:			
Receipts from transit customers	$	621,366	603,291
Receipts from other operations		73,239	59,721
Payments to suppliers and vendors		(932,648)	(874,191)
Payments to employees		(578,022)	(569,249)
Net cash used in operating activities		(816,065)	(780,428)
Cash flows from capital and related financing activities:			
Cash (used in) provided by:			
Additions to transportation property		(677,041)	(712,923)
Interest paid		(259,741)	(265,738)
(Increase) decrease in deferred credits/charges		956	181
Commercial paper (retirements) advances, net		(27,050)	60,000
Payments on debt		(346,935)	(240,295)
Proceeds from bond and note issuances		358,405	—
Bond construction and reserve account disbursements (receipts)		(134,200)	137,759
Proceeds from bond premiums		23,335	—
Payments on swap termination		(78,865)	—
Payments of capital lease activity		(4,475)	(5,174)
Increase (decrease) in lease deposit/account		—	(7,252)
Capital grants		560,479	581,326
Other		4,230	(1,411)
Net cash used in capital and related financing activities		(580,902)	(453,527)
Cash flows from noncapital and related financing activities:			
Sales tax and local assessment		1,310,221	1,235,968
Reimbursable payments		22,155	31,486
Net cash provided by noncapital and related financing activities		1,332,376	1,267,454
Cash flows from investing activity:			
Interest and other income		31,552	14,165
Net cash provided by investing activity		31,552	14,165
Net change		(33,039)	47,664
Cash, temporary cash investments, restricted, and other special accounts, beginning of year		401,947	354,283
Cash, temporary cash investments, restricted, and other special accounts, end of year	$	368,908	401,947
Adjustments to reconcile operating loss to net cash used in operating activities:			
Operating loss	$	(1,414,411)	(1,394,500)
Changes not requiring current expenditure of cash:			
Depreciation and amortization		419,774	389,155
Increase in pension amounts		60,303	104,298
Increase in other postemployment benefits		117,729	143,234
Changes in all other working capital accounts except cash, temporary cash investments, and short-term debt		540	(22,615)
Net cash used in operating activities	$	(816,065)	(780,428)

See accompanying notes to financial statements.

(1) The Reporting Entity

The Massachusetts Bay Transportation Authority (the "Authority") was originally created in 1964 as a body politic and corporate and a political subdivision of the Commonwealth of Massachusetts (the Commonwealth) to finance and operate mass transportation facilities within, and, to a limited extent, outside of its territorial area of 175 cities and towns and is authorized to enter into agreements for providing mass transportation service by private companies, including railroads. The 175 cities and towns are grouped into three categories, based upon the weighting of each member's allocable percentage of population and assessments: (i) the inner 14 cities and towns; (ii) the outer 51 cities and towns; and (iii) the other 110 served communities.

Chapter 161A is referred to herein, together with Section 35T of Chapter 10 of Massachusetts General Laws, as the "Enabling Act."

The Authority is governed and its corporate powers exercised by the board of directors (the "Board of Directors" or "Board") of the Massachusetts Department of Transportation ("MassDOT"). However, during its existence, the Control Board is afforded all the powers, responsibilities, and obligations relative to the Authority that are vested in the Board.

The Control Board Act is part of the Commonwealth Fiscal Year 2016 budget, Chapter 46 of the Acts of 2015 of the Commonwealth, effective July 17, 2015. The Control Board is within the Massachusetts Department of Transportation and reports to the Secretary of Transportation (the "Secretary"). The Control Board is afforded all powers, responsibilities and obligations relative to the MBTA that are vested in the Board, with certain limited exceptions.

In addition, the Control Board may (i) establish separate operating and capital budgets each with clearly designated revenue sources and uses and establish policies and procedures to ensure that no funds are commingled between operating and capital budgets; (ii) establish one-year and five-year operating budgets beginning with Fiscal Year 2017, which are balanced primarily through a combination of internal cost controls and increased own-source revenues and which facilitate the transfer of all MBTA employees from the capital budget to the operating budget; (iii) establish five-year and 20-year capital plans that include a phased program for the complete restoration of the physical assets of the Authority including its vehicle fleet, a plan to address failings within the existing capital program and funding recommendations to meet the region's transit needs; (iv) establish a rigorous performance management system and performance metrics and targets that address, among other things, maximizing of own-source revenues, increasing ridership, reducing absenteeism, addressing vacancies and attrition, improving employee morale, achieving procurement and contracting improvements and improving customer focus and orientation; (v) review any contract for the provision of services entered into by the Authority, including contracts entered into before the establishment of the Control Board, including, but not limited to, commuter rail and paratransit service contracts, and amend those contracts, as necessary, in accordance with their terms; and (vi) establish, increase, or decrease any fare, fee, rate, or charge for any service, license or activity within the scope of the MBTA. The Control Board may: (i) reorganize or consolidate MBTA departments, divisions or entities, in whole or in part, except the Metropolitan Boston Transit Parking Corporation; (ii) establish any new departments, divisions, or entities as it considers necessary; and (iii) transfer the duties, powers, functions and appropriations of a department, division or entity, except the duties, powers, functions and appropriations of the Metropolitan Boston Transit Parking Corporation, to another. Any reorganization or consolidation that affects MassDOT shall be approved by the Board.

The Control Board consists of five members appointed by the Governor. Three members shall be members of the Board, one shall have experience in transportation finance and one shall have experience in mass transit operation. The Control Board will continue until June 30, 2018; unless extended an additional two years if, prior to June 30, 2018, the Control Board finds in a recommendation to the Governor that such two-year period is in the best interest of the public and necessary to achieve operational stability and to establish performance metrics for the Authority. Upon such recommendation, the Governor may approve the extension but in no event shall the Control Board continue beyond June 30, 2020.

Following the dissolution of the Control Board, the MassDOT Board will resume sole governance of the Authority. The Board consists of 11-members. The Secretary of Transportation shall serve ex-officio as Chair and ten other members appointed by the Governor, one of whom shall be a rider, as defined in the Enabling Act; one of whom shall have experience in the field of public or private finance; one of whom shall have experience in transportation planning and policy; one of whom shall have experience in civil engineering; one of whom shall have experience in the field of public or private finance or transportation planning and policy; one of whom shall have municipal government experience in one of the fourteen cities and towns, as defined in the Enabling Act; one of whom shall have municipal government experience in one of the fifty-one cities and towns, as defined in the Enabling Act; one of whom shall have municipal government experience in one of the other served communities, as defined in the Enabling Act; one of whom shall have municipal government experience in a city or town not part of the area constituting the authority, as defined in the Enabling Act; and one of whom shall be a representative of a labor organization selected from a list of three nominees provided by the Massachusetts State Labor Council, AFL-CIO. Four of the members, other than the Chair, shall serve for terms that are coterminous with the Governor; provided, however, that at least three of the coterminous members shall have experience in transportation policy, public finance or civil engineering and at least one of the coterminous members shall be a rider. The six remaining members appointed by the Governor shall serve for terms of four years. No more than six of the eleven directors, except the ex-officio director, shall be members of the same political party.

Under the Enabling Act, the Advisory Board, consisting of a representative of each of the cities and towns paying Assessments, shall have certain specified powers, including the power to review the Authority’s long term capital program and annual operating budget. The Enabling Act does not provide for the Authority to be a debtor under the federal bankruptcy code.

The Control Board shall appear before and provide updates to the Board not less than once per month.

On May 4, 2011, the Authority approved the establishment of Metropolitan Boston Transit Parking Corporation (“MBTPC”) a private Massachusetts nonprofit corporation organized under the provisions of Chapter 180 of Massachusetts General Laws, for the limited purpose of taking action necessary to provide for issuance of bonds on behalf of the Authority secured by the revenues from the parking system of the Authority. The MBTPC Systemwide Senior Lien Parking Revenue Bonds, Series 2011 were issued on June 22, 2011. The Authority is the sole member of MBTPC and the Board of Directors consists of three ex officio management employees of the Authority. MBTPC has no employees. MBTPC is authorized under the Systemwide Parking Revenue Bonds Resolution (the “General Resolution”) to issue debt payable and has assumed certain rights to receive gross revenues from the parking system of the Authority under a Transfer and Disposition Agreement. The obligations of the corporation, the bonds and Transfer and Disposition Agreement are limited obligations, payable solely from the assets of MBTPC, which are pledged under the General Resolution and recourse shall be limited to such assets. Due to its relationship with the Authority, the MBTPC is considered a blended component of the Authority.

In accordance with the requirements of Governmental Accounting Standards Board (“GASB”), Statements, of the financial statements must present the Authority (the primary government) and its component units. Pursuant to this criterion, no component units, other than the MBTPC, were identified for inclusion in the accompanying financial statements. Additionally, the accompanying financial statements are incorporated into the financial statements of MassDOT, as the Authority is a component unit of MassDOT.

(2) Summary of Significant Accounting Policies

(a) Basis of Financial Reporting

The Authority applies U.S. generally accepted accounting principles (“GAAP”) as prescribed by GASB. The accompanying financial statements have been prepared using the economic resources measurement focus and the accrual basis of accounting and reflect transactions on behalf of the Authority, the reporting entity. The Authority accounts for its operations as an enterprise fund. Operating revenues and expenses result from providing transportation services to member communities. All other revenues and expenses are reported as nonoperating revenues and expenses.

(b) Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

(c) Cash

Cash and cash equivalents include cash on deposit and money market funds.

(d) Investments

Investments are generally presented at fair value, other than certain investments that are recorded at amortized cost. The MBTA uses an independent pricing source to determine the fair value of investments at quoted market prices. Changes in fair value are included in nonoperating interest income in the Statement of Revenues, Expenses and Changes in Net Position. The investments recorded at amortized cost are those outlined by GASB standards and include: Investments held by the Authority in nonparticipating interest-earning investment contracts and money market investments and participating interest-earning contracts that have a remaining maturity at the time of purchase of one year or less. The Authority invests in the Massachusetts Municipal Depository Trust (“MMDT”), which is an internal investment pool and is not SEC-registered. The fund is state-regulated and is valued at amortized cost.

(e) Statements of Cash Flows

For purposes of the statements of cash flows, the Authority considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents, which are reported as temporary cash investments.

(f) Restricted Cash and Investment Accounts

Certain cash and investments are segregated from operating cash due to certain internal or external restrictions as follows:

- Bond Construction Accounts – represent unexpended bond proceeds.
- Lease Deposits – represent investments (Treasury STRIPS and a collateralized investment agreement) held by trustees that will be used to make scheduled equity payments on the Authority's capital leases.
- Bond Reserve Accounts – represent funds required to be maintained by trust agreements and bond resolutions.
- Stabilization Accounts – represent funds held in accordance with statutory requirements to be used when annual revenues are projected to be less than annual expenses, or if the Authority has insufficient funds on hand to pay current expenses.
- Other Accounts – represent internally restricted funds held for capital maintenance, debt service, and other expenses.

(g) Capital Assets

All capital assets exceeding $5, with a useful life of greater than one year, are stated at historical cost. These costs include the Authority's labor costs for employees working on capital projects, related fringe benefits, and an allocated share of general and administrative costs. Ordinary maintenance and repairs are charged to expense as incurred.

Depreciation of capital assets is computed using the straight-line method over the estimated useful life of the asset. The major categories of transportation property in service and their estimated useful lives are as follows at June 30, 2016 and 2015:

	Estimated useful life
Ways and structures	10–60 years
Building and equipment	3–25 years

(h) Construction in Progress

During fiscal years 2016 and 2015, $786,734 and $836,684, respectively, were expended towards the completion of major construction projects and improvements in progress. The projects and improvements completed were transferred to the appropriate transportation property accounts. Major projects included transit service extensions, right of way improvements, and purchases of new rolling stock and other equipment.

In prior years, the interest on debt used to finance major construction/procurement projects was capitalized by aggregating the interest expense incurred from the date of the debt issuance until the entire drawdown of the proceeds, then offsetting that amount with interest earned over the same period by the invested proceeds. Over the past several years, the Authority substantially completed certain major projects whose interest costs were previously capitalized. These projects included the Automated Fare Collection System, the Greenbush Commuter Rail Line extension, the Silverline Transitway and several vehicle fleet procurements. Accordingly, in fiscal years 2016 and 2015, the Authority had no material capitalized interest.

(i) Materials and Supplies

Materials and supplies are stated at average cost and include items to support the Authority's operations.

(j) Self-Insurance

The Authority is fully self-insured for various risks including workers' compensation, and injuries and damages claims. The Authority also self-insures a portion of casualty, liability claims, and property losses.

(k) Revenue Recognition

The Authority realizes revenue from a variety of different sources including but not limited to dedicated sales tax revenue, dedicated assessment revenue, state contract assistance appropriated funds, fare revenue, and nonfare revenue such as real estate, parking, and advertising revenues.

Under the Enabling Act, the Dedicated Revenues are impressed with a trust for the benefit of Authority bondholders. Furthermore, the Commonwealth covenants that while any Authority bonds or notes secured by the Dedicated Revenues are outstanding and remain unpaid, the Dedicated Revenues shall not be diverted, and, so long as the Dedicated Revenues are necessary for the purpose for which they have been pledged, the rate of the sales tax shall not be reduced below the amount of the Dedicated Sales Tax and annual aggregate Assessments of $136,027.

The dedicated assessment revenue consists of the obligation of 175 cities and towns in the Authority's expanded district to pay assessments for transportation services and benefits rendered. The Commonwealth deducts the assessments from each municipality's local aid payments; as such, these payments are received from the Commonwealth. The Authority recognizes the assessments on an accrual basis as nonoperating revenue.

The Transportation Reform Act established the Commonwealth Transportation Fund ("CTF"), a budgetary fund of the Commonwealth for transportation related purposes, to receive essentially the same revenue previously deposited into the Highway Fund, including gasoline tax receipts, tunnel and highway tolls, and registry fee revenue. The CTF will also receive the sales tax receipts dedicated for transportation purposes, with a guaranteed annual payment of $275,000. The Authority receives a dedicated revenue stream consisting of the Assessments and the Dedicated Sales Tax (collectively, the "Dedicated Revenues"). The Dedicated Sales Tax is equal to the greater of the base revenue amount (as defined in the Enabling Act) and the amount raised by a 1% statewide sales tax to be funded from existing sales tax receipts, subject to adjustment under certain circumstances set forth in the Enabling Act, plus $160,000 annually. The Enabling Act was amended on October 31, 2014 to increase the Dedicated Sales Tax by $160,000 annually, starting in Fiscal Year 2015. This was intended to replace the $160,000 annual appropriation the MBTA received from Fiscal Years 2010 to 2014. The Transportation Finance Act provided funding for various transportation services and infrastructure needs within the various units of MassDOT. The Commonwealth appropriated the amount of $155,833 and $122,553 from the CTF to the Authority for fiscal years 2016 and 2015. This amount is subject to appropriation by the Commonwealth in future years. The Authority recognizes the state appropriated funds on an accrual basis as nonoperating revenue.

The Authority generates significant revenue from the operation of its transportation system, including both fare revenue and nonfare revenue such as those derived from real estate, parking, and advertising. Fare revenue is recorded on an accrual basis as operating revenue when fare media is purchased by riding customers through fare vending equipment and pass programs administered by the Authority. Real estate, parking, and advertising revenue is recorded on an accrual basis as operating revenue upon reporting of independent contractors managing these revenue streams on behalf of the Authority.

(l) Capital Grants and Contributions

The Authority receives capital grants from certain governmental agencies to be used for various purposes connected with the planning, modernization, and expansion of transportation facilities and equipment. Capital grants of the Authority are reported as revenue rather than contributed capital as required by GASB Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*.

(m) Compensated Absences

The Authority accrues for vested vacation pay when it is earned by employees. The amount of vested vacation pay accrued as of June 30, 2016 and 2015 was $20,888 and $19,991, respectively.

(n) Lease Accounts

Lease accounts represent amounts owed by third parties that are required to be used to pay lease payments under payment undertaking agreements on the Authority's capital leases (note 6).

(o) Pension Plans

The Governmental Accounting Standards Board issued GASB Statement No. 68, *Accounting and Financial Reporting for Pensions* which changed the way in which the Authority reports its participation in its defined benefit pension plans, including the MBTA Retirement Fund, the MBTA Police Association Retirement Plan and the MBTA Deferred Compensation Plan. Among the changes, GASB Statement No. 68 requires the Authority to record a liability on the statement of net position for its unfunded pension plans' obligation. For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the MBTA Retirement Fund, the MBTA Police Association Retirement Plan, and the MBTA Deferred Compensation Plan, and additions to/deductions from the Plans' fiduciary net position have been determined on the same basis as they are reported by the Plans. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

(p) Other Postemployment Benefits

GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits*, requires governments to account for other postemployment benefits, primarily healthcare, on an accrual basis, rather than on a pay as you go basis. The effect is the recognition of an actuarially required contribution as an expense on the statement of revenue, expenses, and changes in net position when future retirees earn their postemployment benefit rather than when they use their postemployment benefit. To the extent that an entity does not fund its actuarially required contribution, a postemployment benefit liability is recognized on the balance sheet over time (note 14).

(q) Environmental Remediation Costs

The Authority recognizes pollution remediation liabilities related to site investigation, planning and design, cleanup, and site monitoring in accordance with the provisions of GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*. An operating expense provision and corresponding liability measured at current value using the expected cash flow method and in a range of possible estimated amounts has been recognized for certain pollution remediation obligations. The remediation obligation estimates are subject to change over time due to price fluctuations, changes in technology, changes in potential responsible parties, statutes or regulations, or other factors, which could result in the revision of these estimates (note 11).

(r) Derivatives

As a means of lowering the borrowing costs related to the Authority's variable rate debt, in prior years, the MBTA has entered into various interest rate swap agreements. Derivative instruments are reported as assets or liabilities at fair value on the statement of net position. Changes in fair value may be reported in the statement of revenue, expenses, and changes in net position, or as deferred inflows or deferred outflows of resources in the statement of net position depending upon whether the derivative instrument qualifies for hedge accounting.

(s) Available Unrestricted Resources

The Authority's policy is to utilize available unrestricted resources prior to restricted resources.

(t) Deferred Inflows and Outflows

The Authority accounts for certain transactions that result in the consumption or acquisition of one period that are applicable to future periods as deferred outflows and deferred inflows, respectively, to distinguish them from assets and liabilities. For fiscal 2016 and 2015, the Authority has reported deferred outflows related to its derivative instruments, its pension plans and the deferred losses on debt refunding transactions. The deferred inflows are related to the deferred gains on debt refunding transactions and its pension plans.

(u) Statement of Net Position

The statement of net position presents all of the Authority's assets and liabilities, with the difference reported as net position. Net position is reported in three categories:

- **Net investment in capital assets** consists of capital assets, net of accumulated depreciation and reduced by outstanding balances for bonds, notes and other debt that are attributed to the acquisition, construction or improvement of those assets.
- **Restricted net position** result when constraints placed on net position use are either externally imposed by creditors, grantors, contributors, and the like, or imposed by law through enabling legislation.
- **Unrestricted net position** consists of net position which does not meet the definition of the two preceding categories.

(3) Deposits and Investments

The Authority's investment policy is to only invest in securities named in the respective trust agreements.

The Authority is authorized by its board of directors to make deposits into checking and savings accounts and to invest in direct obligations of the U.S. Treasury, its agencies and instrumentalities, bankers' acceptances, investment agreements, municipal bonds, repurchase agreements secured by U.S. government and agency obligations, and certain other investments permitted under the trust indentures.

Obligations of any agency or instrumentality of the United States of America including, but not limited to, the following may be acceptable as collateral to secure certificates of deposit or other instruments:

(A) Federal Home Loan Banks

(B) Federal Land Banks

(C) Federal Intermediate Credit Banks

(Dollars in thousands)

(D) Bank for Cooperatives

(E) Federal National Mortgage Association

(F) Federal Farm Credit Banks

The Authority may invest in prime commercial paper of corporate issuers with a minimum quality rating of P 1 by Moody's Investors Service ("Moody's") or A 1 by Standard and Poor's ("S&P"). These instruments can vary in maturity; however, no more than 10% of the investment funds shall be invested in the commercial paper of a single corporation.

Additionally, the Authority is authorized to invest in the Massachusetts Municipal Depository Trust ("MMDT"), a pooled money market like investment fund, established under General Laws, Chapter 29, Section 38A. MMDT is an internal investment pool that meets the criteria established by GASB 79 to report its investments at amortized cost. As such, the Authority reports its investment in MMDT at amortized cost which approximates the net asset value of $1.00 (one dollar) per share. MMDT has a maturity of less than one year and is not rated.

Marketable securities, which consist primarily of U.S. government instruments, are carried at fair value based upon quoted market prices. Nonparticipating interest earning contracts, including certificates of deposit and guaranteed investment contracts, are carried at cost.

Deposits and investments consisted of the following amounts presented in the accompanying statements of net position at June 30, 2016 and 2015:

		2016	2015
Restricted:			
Bond construction accounts	$	228,301	80,919
Bond reserve, stabilization, and other accounts		664,361	655,899
Lease deposits		63,900	53,116
Subtotal		956,562	789,934
Unrestricted cash and temporary cash investments		272,459	307,209
	$	1,229,021	1,097,143

Included in bond reserve, stabilization, and other accounts at June 30, 2016 and 2015 are investments in Commonwealth debt instruments with a fair value of $49,110 and $45,892, respectively.

In March 2016, the Board of the Authority approved the establishment of a Lockbox Capital Maintenance Fund (the "Fund") that is to be funded by the increase in fare revenue generated by the fare changes effective July 1, 2016. Resources deposited in the Fund will be used for pay-as-you-go capital improvements to the system. Spending from the Fund for any purpose other than capital improvements requires at least a twothirds vote of the FMCB. By December 2016, the Fund had a balance of over $100,000.

(Dollars in thousands)

(a) Custodial Credit Risk – Deposits

The custodial credit risk for deposits is the risk that, in the event of a bank failure, the Authority's deposits may not be recovered. The deposits in the bank in excess of the insured amount and collateralized amount are uninsured and uncollateralized. The carrying amount of the Authority's deposits at June 30, 2016 and 2015 was $220,414 and $267,735, respectively. The bank balance at June 30, 2016 and 2015 was $218,791 and $270,871, respectively. Of this amount, $45,235 and $24,894, respectively, was exposed to custodial credit risk as uninsured and uncollateralized. These amounts reflect the Federal Deposit Insurance Corporation limit of $250 per institution at June 30, 2016 and 2015.

(b) Interest Rate Risk – Investments

Interest rate risk is the risk that changes in interest rates of debt investments will adversely affect the fair value of an investment. The Authority follows the guidelines in the Authority's trust agreements, and does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.

The Authority's fixed income investments at June 30, 2016 and 2015 are presented below. All investments are presented by investment type and maturity.

		2016				
			Investment maturities (in years)			
Investment type		**Amount**	**Less than 1 year**	**1 – 3**	**4 – 8**	**More than 8**
MMDT	$	201,572	201,572	—	—	—
Money market funds		383,846	383,846	—	—	—
Guaranteed investment contracts		1,333	—	—	—	1,333
U.S. Treasury STRIPS		63,900	—	—	—	63,900
U.S. Treasury securities		62,926	—	—	—	62,926
U.S. government-sponsored enterprises		243,817	202,162	6,208	—	35,447
Municipal bonds		49,110	—	—	4,743	44,367
Commercial paper and certificates of deposit		2,103	2,103	—	—	—
Investments	$	1,008,607	789,683	6,208	4,743	207,973

(Dollars in thousands)

		2015				
			Investment maturities (in years)			
Investment type		Amount	Less than 1 year	1 – 3	4 – 8	More than 8
MMDT	$	119,582	119,582	—	—	—
Money market funds		195,679	195,679	—	—	—
Guaranteed investment contracts		1,335	—	—	—	1,335
U.S. Treasury STRIPS		53,116	—	—	—	53,116
U.S. Treasury securities		62,926	—	—	—	62,926
U.S. government-sponsored enterprises		208,145	153,785	7,605	—	46,755
Municipal bonds		45,892	—	—	—	45,892
International bank notes		41,807	41,807	—	—	—
Commercial paper and certificates of deposit		100,926	100,926	—	—	—
Investments	$	829,408	611,779	7,605	—	210,024

(c) *Credit Ratings*

The Authority holds guaranteed investment contracts with a fair value of $1,333 and $1,335 at June 30, 2016 and 2015, respectively. These investments are not rated.

The Authority had $175,936 and $161,934 in U.S. Treasury STRIPS, U.S. Treasury securities and municipal bonds as of June 30, 2016 and 2015, respectively. The investments in Treasury STRIPS and other U.S. obligations are backed by the full faith and credit of the U.S. government. The municipal bonds have an implied credit rating of Aaa/AA+

The Authority has $243,817 and $208,145 invested in government-sponsored enterprises as of June 30, 2016 and 2015, respectively. These investments have an implied credit rating of AAaa/AA+ or they have been collateralized to AAA.

The Authority has $201,572 and $119,582 invested in MMDT as of June 30, 2016 and 2015, respectively, a state investment pool managed by Fidelity Investments as agent for the Commonwealth and shareholders of the MMDT. MMDT is unrated.

The Authority also has $385,949 and $338,412 invested in money market funds, international bonds, commercial paper, and certificates of deposit as of June 30, 2016 and 2015, respectively. These investments are not rated.

(Dollars in thousands)

(d) Concentration of Credit Risk – Investments

Concentration of credit risk is the risk of loss attributable to the magnitude of the Authority's investment in a single issuer. The issuers where securities at year-end exceeded 5% of the total investments, other than U.S. government obligations and mutual funds, are as follows:

	Credit rating by Moody's/S&P	2016	Percentage of portfolio
Federal National Mortgage Association	Aaa/AA+	$ 103,815	10.3%

	Credit rating by Moody's/S&P	2015	Percentage of portfolio
Federal National Mortgage Association	Aaa/AA+	$ 135,600	16.4%

(e) Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The Authority was not exposed to foreign currency risk as of June 30, 2016 and 2015.

(f) Fair Value Hierarchy

Investments are measured at fair value on a recurring basis. Recurring fair value measurements are those that are required to be made at the end of each reporting period. Fair value measurements are categorized based on the valuation inputs used to measure the fair value.

- Level 1 inputs are quoted market prices in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date.
- Level 2 inputs are other than quoted prices in Level 1 that are observable for the asset or liability or similar assets or liabilities either directly or indirectly through corroboration with the observable market data.
- Level 3 inputs are significant unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in the methodologies used at June 30, 2016.

Institutional Money Market Funds – Valued at fair value, which is represented by the quoted price for the fund generally $1.00 (one dollar). Institutional Money market funds are generally classified as Level 1.

U.S. Treasury Strips - Treasury strips are typically valued based on pricing sources with reasonable level of price transparency or derived from a treasury curve. Treasury strips are generally categorized as Level 2 of the fair value hierarchy.

U.S. Treasury Securities - Securities issued by the U.S. Government, its agencies, authorities and instrumentalities are valued using quoted prices, documented trade history in the security and a pricing model maximizing the use of observable inputs determined by investment managers.

- U.S. Treasury Securities consist principally of U.S. Treasury bills, notes and bonds are generally classified as Level 1 of the fair value hierarchy

- U.S. Government sponsored enterprises securities consist principally of U.S. Government agency obligations including agency-issued debt, agency mortgage pass-through securities, and agency collateralized mortgage obligation (CMOs) are generally categorized in Level l of the fair value hierarchy.

Municipal bonds – State and municipal bonds are generally valued based on the independent prices obtained from third party valuation services. Where prices of recently executed market transactions of similar securities and of comparable size are easily observed, those are taken into consideration for arriving at the fair value. When independent prices are available for state and municipal bonds, these are categorized as Level 2 of the fair value hierarchy.

Commercial paper and Nonnegotiable Certificates of Deposit – Commercial paper issued by corporate or government entities and nonnegotiable certificates of deposit with financial institutions are short term investments that are generally classified as Level 1.

Derivative Instruments – The Authority's interest rate swaps are classified as Level 2 as valued using a market approach that considers benchmark interest rates.

(Dollars in thousands)

(g) *Fair Value Measurements*

The Authority categorizes its recurring fair value measurements within the fair value hierarchy as of June 30, 2016 and 2015 as follows:

		2016		
		Fair Value	Level 1	Level 2
Investments by Fair Value Level				
Money Market Funds	$	383,846	383,846	-
U.S. Treasury STRIPS		63,900	-	63,900
U.S. Treasury securities		62,926	62,926	-
U.S. Government sponsored enterprises		243,817	243,817	-
Municipal bonds		49,110	-	49,110
Commercial paper and CDs		2,103	2,103	-
		805,702	692,692	113,010
Investments measured at amortized cost				
MMDT		201,572		
Guaranteed investment contracts		1,333		
Total investments	$	1,008,607		
Interest rate swaps	$	46,075		46,075

(Dollars in thousands)

		2015		
		Fair Value	Level 1	Level 2
Investments by Fair Value Level				
Money Market Funds	$	195,679	195,679	—
U.S. Treasury STRIPS		53,116	—	53,116
U.S. Treasury securities		62,926	62,926	—
U.S. Government sponsored enterprises		208,145	208,145	—
Municipal bonds		45,892	—	45,892
International bank note		41,807	—	41,807
Commercial Paper and CD's		100,926	100,926	—
		708,491	567,676	140,815
Investments measured at amortized cost				
MMDT		119,582		
Guaranteed investment contracts		1,335		
Total investments	$	829,408		
Interest rate swaps	$	113,246		113,246

The Authority categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. Debt securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Debt securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. The Authority has no securities classified in Level 3. The investment in MMDT, an internal investment pool, is measured at $1.00 per share – the net asset value determined by the pool.

Derivative instruments (i.e., interest rate swaps) classified in Level 2 of the fair value hierarchy are valued using a market approach that considers benchmark interest rates

(h) Forward Delivery Agreements

The Authority has entered into several forward delivery agreements (“FDA”s) with various counterparties related to its debt service and debt service reserve funds (collectively, the “Funds”). These FDAs provide for the counterparties to pay the Authority a fixed rate of return on the amounts on deposit in the Funds in exchange for the Authority’s obligation to purchase securities at specified dates in the future. Under the FDAs, the Authority receives fixed return rates ranging from 4.000% to 6.281% and commits to purchase the securities at their market value on the specified future dates through June 30, 2037. The credit ratings of the counterparties to the FDAs as of June 30, 2016, as determined by Standard and Poor’s, were from “A” – to “AA”.

The investments purchased by the Authority and held in the Funds as of June 30, 2016 and 2015 have been recorded at fair value. The FDAs qualify as derivatives under GASB Statement No. 53 and have been valued at fair value as of the date of the Statement of Net Position. At June 30, 2016 and 2015, the fair value of the FDAs represents an asset to the Authority. The fair value of the FDAs is not material to the Authority's financial statements.

(4) Pledged Revenues

The Authority has pledged, as security for Sales Tax Series Bonds issued and Assessment Bonds issued, a portion of the Commonwealth sales tax (excluding meals) that is restricted for purposes of providing a dedicated revenue source to the Authority and a portion of the assessments obligated to be paid by cities and towns for which the Authority provides specified transportation services. Such bonds, issued by the Authority, provide financing for a portion of the capital improvement projects included in the Authority's approved Capital Investment Program ("CIP"), and are payable through 2041. The pledge of dedicated sales tax receipts and assessments from local communities remains in place until all bonds outstanding are retired and paid. The Authority generally issues bonds annually to fund its CIP, and these funds will continue to be pledged as security for the bonds until such time as the Authority no longer finances its CIP through the issuance of bonds secured by such pledged revenues and all such Authority bonds issued and outstanding have been retired. The total amount of dedicated sales tax revenues and assessment revenues received in fiscal year 2016 was $984,653 and $162,631, respectively, a total of $1,147,284. The total amount of dedicated sales tax revenues and assessment revenues received in fiscal year 2015 was $960,585 and $159,910, respectively, a total of $1,120,495. Total annual debt service (principal and interest) paid during fiscal year 2016 on outstanding Sales Tax Series, Assessment and Prior Obligation Bonds was $470,318, representing 41% of pledged revenues. Total annual debt service paid during fiscal year 2015 on outstanding Sales Tax Series, Assessment and Prior Obligation Bonds was $498,462, representing 42% of pledged revenues.

The MBTPC pledge of dedicated parking receipts of the parking system of the Authority remains in place until all bonds outstanding are retired and paid. MBTPC began operations on June 22, 2011 and total annual debt service commenced on July 1, 2011. The debt service requirement in fiscal year 2016 was $15,373, which represents 35% of $43,559 revenue in the fiscal year 2016. The debt service requirement in fiscal year 2015 was $15,373, which represents 37% of $41,540 parking revenue earned in the fiscal year 2015.

Total principal and interest remaining on Sales Tax Series Bonds, Assessment Bonds, Prior Obligation Bonds, and MBTPC Bonds outstanding as of June 30, 2016 and 2015 are $8,382,061 and $8,498,497, respectively.

(Dollars in thousands)

(5) Net Investment in Direct Financing Lease

The Authority entered into a direct financing lease related to the underground parking garage structure located at Nashua Street and Legends Way in the city of Boston effective on June 6, 2012. The lease is for a subsurface building area with five levels of parking with a capacity for 1,275 automobiles (unaudited). The lease agreement is for a 75 year term with an initial rent payment of $50,000 paid on the commencement date of the lease. Future annual base rent payments will commence on the tenth anniversary of the lease, June 6, 2022, and continue for a 30 year period. The lessee has the right within five years following the effective date to prepay the then outstanding balance of the annual base rent, without penalty, in the amount of $21,700 plus 5% annual interest compounded from the effective date of the lease to the date of prepayment. After the fifth year of the initial term has passed, no prepayment of the then outstanding balance will be allowed or accepted. The Authority has deferred the unearned interest income and will recognize it utilizing the effective interest method over the lease term until such time as the lessee determines whether the operational impact of the exercise of the option is prudent and feasible.

As of June 30, 2016 and through date of the audit opinion date, the lessee has not elected to prepay the outstanding balance of the annual base rent.

The following lists the components of the net investment in direct financing lease as of June 30:

		2016	2015
Total minimum lease payments receivable	$	68,981	68,981
Less unearned income		(44,380)	(45,509)
Net investment in direct financing lease	$	24,601	23,472

(6) Lease Obligations

(a) Capital Lease Arrangements

Transportation property and facilities under capital leases are summarized in the capital assets note 7.

(Dollars in thousands)

The following is a schedule by year of future minimum lease payments under the Authority's capital lease arrangements together with the present value of net minimum lease payments as of June 30, 2016:

Fiscal year(s):		
2017	$	4,110
2018		3,499
2019		596
2020		—
2021		—
2022–2026		—
2027–2031		63,900
		72,105
Less amount representing interest		(123)
Present value of net minimum lease payments		71,982
Less current principal maturities		(4,026)
Obligations under capital leases	$	67,956

The liability for these leases changed in 2016 and 2015 as follows:

Outstanding at June 30, 2014	$	73,458
Net change in obligation		(7,785)
Outstanding at June 30, 2015		65,673
Net change in obligation		6,309
Outstanding at June 30, 2016	$	71,982

(b) Operating Leases

As of June 30, 2016 and 2015, the Authority, as lessor, did not have any outstanding operating lease obligations.

In June 2016, the Authority, as lessor, entered into a 99-year lease with a third party for space at the South Station for an annual lease payment of $1,000 plus contractual increases over the life of the lease.

(Dollars in thousands)

(7) Capital Assets

Capital assets at June 30, 2016 and 2015 are as follows:

	Beginning balance June 30, 2015	Increases	Decreases	Ending balance June 30, 2016
Capital assets not being depreciated:				
Land	$ 375,975	8,980	9	384,946
Construction work in progress	970,116	786,734	524,619	1,232,231
Total capital assets not being depreciated	1,346,091	795,714	524,628	1,617,177
Capital assets being depreciated:				
Ways and structures	10,662,292	195,466	—	10,857,758
Buildings and equipment	2,843,680	210,494	31,374	3,022,800
Buildings and equipment included in capital lease	409,782		1,195	408,587
Total capital assets being depreciated	13,915,754	405,960	32,569	14,289,145
Less accumulated depreciation for:				
Ways and structures	4,289,957	249,288	—	4,539,245
Buildings and equipment	1,802,585	172,375	31,374	1,943,586
Buildings and equipment included in capital lease	280,657	4,479	1,195	283,941
Total	6,373,199	426,142	32,569	6,766,772
Other capital assets, net	7,542,555	(20,182)	—	7,522,373
Capital assets, net	$ 8,888,646	775,532	524,628	9,139,550

(Dollars in thousands)

	Beginning balance June 30, 2014	Increases	Decreases	Ending balance June 30, 2015
Capital assets not being depreciated:				
Land	$ 364,594	14,111	2,730	375,975
Construction work in progress	863,649	836,684	730,217	970,116
Total capital assets not being depreciated	1,228,243	850,795	732,947	1,346,091
Capital assets being depreciated:				
Ways and structures	10,362,411	299,881	—	10,662,292
Buildings and equipment	2,548,247	297,139	1,706	2,843,680
Buildings and equipment included in capital lease	405,439	4,655	312	409,782
Total capital assets being depreciated	13,316,097	601,675	2,018	13,915,754
Less accumulated depreciation for:				
Ways and structures	4,045,210	244,747	—	4,289,957
Buildings and equipment	1,659,623	144,668	1,706	1,802,585
Buildings and equipment included in capital lease	276,578	4,391	312	280,657
Total	5,981,411	393,806	2,018	6,373,199
Other capital assets, net	7,334,686	207,869	—	7,542,555
Capital assets, net	$ 8,562,929	1,058,664	732,947	8,888,646

(8) Long-Term Debt

(a) Bonds Payable

The Enabling Act authorizes the Authority to issue general obligation debt, revenue, or other debt secured by a pledge or conveyance of all or a portion of revenues, receipts, or other assets or funds of the Authority beginning July 1, 2000.

Debt issued by the Authority prior to and outstanding as of July 1, 2000 (the “Prior Obligations”) is backed by the full faith and credit of the Commonwealth to the extent revenues collected by the Authority are insufficient to pay the debt, until the debt is paid off. Principal and interest payments on that debt were subsidized by the Commonwealth prior to June 30, 2000. As of June 30, 2016 and 2015, Prior Obligations in the amount of $206,465 and $229,915, respectively, are outstanding.

Debt issued by the Authority after June 30, 2000 (new debt) will not be supported by the Commonwealth's guarantee. Additionally, the Authority is not expected to receive any principal or interest subsidies from the Commonwealth for the repayment of the prior obligations and new debt of the Authority, unless authorized by special legislation.

On October 14, 2015, the Authority issued Senior Sales Tax Series 2015A and Series 2015B for \$358,405. Principal is payable on July 1, 2019 through July 1, 2045. The first interest payment on these bonds was due on January 1, 2016. The Series 2015A sales tax bonds were issued for use to finance systemwide improvements, vehicle replacements and other capital projects. The 2015B sales tax bonds were issued to refund the remainder of 2006 Series C Senior Sales Tax Bonds, the remainder of 2005 Series A Assessment Bonds, and to partially refund the 2008 Series A Assessment Bonds.

Principal on the 2015 Series A Sales Tax is payable beginning July 1, 2022 and on each July 1 through July 1, 2045. Interest on these bonds is paid semiannually on July 1 and January 1.

Principal on the 2015 Series B Sales Tax is payable beginning July 1, 2019 and on each July 1, 2024 through July 1, 2035 except for July 1, 2031 and July 1, 2034. Interest on these bonds is paid semiannually on July 1 and January 1.

No bonds were issued by the Authority during fiscal year 2015.

GTS bonds, all issued prior to July 1, 2000, are payable in annual installments on March 1 and interest is payable semiannually on March 1 and September 1. The GTS bonds were issued to provide funds for the financing of the Authority's transportation properties.

The Authority issued commercial paper notes in the amount of \$60,000 during fiscal year 2015, to fund debt service payment on Prior Obligations of the Authority. The Authority paid off \$27,050 and \$66,675 during fiscal years 2016 and 2015, respectively. The balance of \$67,300 and \$94,350 was outstanding as of June 30, 2016 and 2015. At June 30, 2016, the total commercial paper notes included CP Sales Tax Series A in the amount of \$29,775 with a weighted average daily rate 0.156214% and CP Sales Tax Series B in the amount of \$37,525 with a weighted average daily rate 0.124547%.

No commercial paper was issued by the Authority during fiscal year 2016, excluding rollovers.

(Dollars in thousands)

The Authority's bonds payable outstanding at June 30, 2016 are as follows:

	Final fiscal year of maturity	Interest rates	Outstanding principal as of June 30, 2016	Due in fiscal year 2017
General transportation system bonds:				
1991 Series A Bonds dated November 1, 1991	2021	7.00%	$ 36,165	—
1992 Series B Refunding Bonds dated December 1, 1992	2016	6.20%	2,925	965
1994 Series A Refunding Bonds dated June 1, 1994	2019	6.25-7.00%	—	—
1998 Series C Bonds dated November 1, 1998	2022	5.25-5.75%	5,955	1,505
2000 Series Variable Rate Demand Obligation dated March 10, 2000*	2030	Variable	161,420	7,160
			206,465	9,630
Revenue bonds:				
2003 Series A Senior Sales Tax Bond dated January 29,2003	2021	4.00%-5.25%	101,130	5,945
2003 Series C Senior Sales Tax Bond dated February 3, 2004**	2023	Variable	152,090	22,425
2004 Series A Senior Sales Tax Bond dated February 3, 2004	2016	5.00%-5.25%	7,315	7,315
2004 Series B Senior Sales Tax Bonds dated March 9, 2004	2030	3.00%-5.25%	343,445	42,000
2004 Series C Senior Sales Tax Bonds dated December 22, 2004	2024	3.00%-5.50%	220,355	57,940
2005 Series A Senior Sales Tax Bonds dated March 24, 2005	2031	5.00%	735,450	—
2005 Series A Assessment Bonds dated September 8, 2005	2035	3.20%-5.00%	—	
2005 Series B Senior Sales Tax Bonds dated December 21, 2005	2029	3.40% – 5.50%	91,955	60
2006 Series A Senior Sales Tax Bonds dated March 2, 2006	2034	5.25%	238,850	—
2006 Series B Senior Sales Tax Bonds dated December 5, 2006	2023	5.00% – 5.25%	163,010	15,050
2006 Series C Senior Sales Tax Bonds dated June 28, 2006	2027	4.00%-5.00%	8,410	—
2006 Series A Assessment Bonds dated September 13, 2006***	2035	Variable	161,340	—

(Dollars in thousands)

	Final fiscal year of maturity	Interest rates	Outstanding principal as of June 30, 2016	Due in fiscal year 2017
Revenue bonds:				
2007 Series A-1 Senior Sales Tax Bonds dated May 24, 2007	2034	5.25%	205,675	—
2007 Series A-2 Senior Sales Tax Bonds dated May 24, 2007	2037	Zero Coupon	204,367	—
2008 Series A-1 Senior Sales Tax Bond dated April 2, 2008*	2026	3.083%-3.834%	130,275	18,990
2008 Series A-2 Senior Sales Tax Bond dated April 2, 2008*	2026	3.083%-3.834%	121,415	570
2008 Series B Senior Sales Tax Bond dated April 30, 2008	2033	3.00%-5.25%	43,570	8,380
2008 Series A Assessment Bond dated November 13, 2008	2034	4.00% – 5.25%	153,870	—
2009 Series B Senior Sales Tax dated February 26, 2009	2018	3.00% – 5.00%	39,365	—
2009 Series D Senior Sales Tax dated October 29, 2009	2019	3.00% – 5.00%	14,445	—
2010 Series A Senior Sales Tax dated February 17, 2010****	2030	Variable	80,255	80,255
2010 Series B Senior Sales Tax dated April 6, 2010	2035	2.00% – 5.00%	72,470	1,415
2010 Series C Senior Sales Tax dated December 8, 2010	2020	5.00%	63,450	—
2012 Series A Assessment Bond dated June 21, 2012	2024	5.00%	404,805	1,985
2014 Series A Sales Tax Bonds dated April 23, 2014	2045	4.00% – 5.00%	200,000	5,000
2015 Series A Sales Tax Bonds dated October 14, 2015	2046	2.00%- 5.00%	177,855	—
2015 Series B Sales Tax Bonds dated October 14, 2015	2036	4.00% – 5.00%	180,550	—
			4,315,717	267,330
Metropolitan Boston Transit Parking (MBTPC) Bonds:				
2011 Series A MBTPC dated June 22, 2011	2041	4.00% – 5.25%	304,585	—
			304,585	—

(Dollars in thousands)

	Final fiscal year of maturity	Interest rates	Outstanding principal as of June 30, 2016	Due in fiscal year 2017
Revenue Build America (BABs) Bonds:				
2009 Series C Senior Sales Tax dated October 29, 2009	2039	4.75% – 5.57%	218,300	—
2010 Series D Senior Sales Tax dated December 8, 2010	2040	4.546% – 5.869%	210,000	—
			428,300	—
Commercial Paper	2016	0.12% – 0.16%	67,300	67,300
Total bond and notes payable			5,322,367	344,260
Less current maturities			(344,260)	
Total long-term			4,978,107	
Plus unamortized bond premiums/discounts, net			333,824	
Total long-term bonds payable			$ 5,311,931	

* The bonds were issued as variable rate demand obligations ("VRDO"s) and bear interest at a variable rate. As of September 28, 2011, the 2000 Series VRDO was split into 2000 Series A 1 VRDO ($94,000) and 2000 Series A 2 VRDO ($94,000). The interest rates as of June 30, 2016 for the 2000 Series A 1 are 0.43%; 0.40% for the 2000 Series A 2 VRDO; 0.40% for the 2008 Series A 1 Senior Sales Tax Bond, and 0.41% for the 2008 Series A 2 Senior Sales Tax Bond.

** The 2020 maturity in the amount of $25,005 is variable rate debt based on the MUNI CPI rate, plus 79 basis points.

*** The 2024 maturity in the amount of $19,260 and the 2025 maturity in the amount of $5,000 is variable debt based on the MUNI CPI rate, plus 123 basis points.

**** This bond was issued as a windows VRDO and its variable interest is based on the SIFMA rate, plus 9 basis points. As of June 30, 2016 the variable interest is based on the SIFMA rate, plus 20 basis points. The Authority classifies these bonds short term, as it does not have a standby purchase agreement and/or a letter of credit providing liquidity support for the remarketing window. The Authority does not foresee the bond being called.

(Dollars in thousands)

The principal and interest maturities of the bonds and notes payable as of June 30, 2016 are as follows:

		Principal	Interest
Fiscal year(s):			
2017	$	344,260	252,676
2018		217,105	242,310
2019		258,290	230,216
2020		266,155	216,787
2021		278,195	202,919
2022–2026		1,265,133	858,316
2027–2031		1,123,965	576,322
2032–2036		849,419	328,759
2037–2041		538,586	136,863
2042–2046		181,259	14,526
Total	$	5,322,367	3,059,694

A summary rollforward of bonds payable for the years ended June 30, 2016 and 2015 is as follows:

		2016					
		Balance 2015	Bonds issued	Principal payments	Refunded/ redeemed principal	Capital appreciation bond accretion	Balance 2016
GTS	$	229,915	—	23,450	—	—	206,465
Revenue		4,271,457	358,405	127,070	196,415	9,340	4,315,717
BABs		428,300	—	—	—	—	428,300
Commercial Paper		94,350	—	27,050	—	—	67,300
MBTPC		304,585	—	—	—	—	304,585
	$	5,328,607	358,405	177,570	196,415	9,340	5,322,367

		2015					
		Balance 2014	Bonds issued	Principal payments	Refunded/ redeemed principal	Capital appreciation bond accretion	Balance 2015
GTS	$	296,640	—	66,725	—	—	229,915
BMD		2,010	—	2,010	—	—	—
Revenue		4,367,429	—	104,885	—	8,913	4,271,457
BABs		428,300	—	—	—	—	428,300
Commercial Paper		101,025	60,000	66,675	—	—	94,350
MBTPC		304,585	—	—	—	—	304,585
	$	5,499,989	60,000	240,295	—	8,913	5,328,607

(Dollars in thousands)

The following funds are included in restricted assets at June 30, 2016 and 2015 in connection with the Authority's revenue bond trust agreements and bond resolutions:

		2016			2015		
		Assessment bonds	**Sales tax bonds**	**MBTPC bonds**	**Assessment bonds**	**Sales tax bonds**	**MBTPC bonds**
Debt service	$	46,707	317,532	8,639	51,561	250,273	9,381
Debt service reserve		30,440	202,795	13,559	68,334	214,060	13,347
	$	77,147	520,327	22,198	119,895	464,333	22,728

The minimum required balances in the debt service reserve funds at June 30, 2016 and 2015 were $189,477 and $184,971 for the Sales Tax Series Bonds and $29,702 and $35,272 for the Assessment Bonds, respectively. The minimum required balances in the debt service reserve funds at June 30, 2016 and 2015 for MBTPC Bonds were $12,294 and $12,294, respectively. The Authority has complied with its financial bond covenants by maintaining sufficient cash and investments in the debt service reserve funds.

In order to take advantage of low interest rates and easily accessible short term capital markets, the Authority issues commercial paper to raise funds in order to meet its capital needs. The Authority has a $250,000 commercial paper program in total of which $150,000 is administered by JP Morgan and $100,000 by Barclays Capital Inc. The Authority's commercial paper program has been assigned short term ratings of P-1 and A-1+ by Moody's and S&P, respectively. The Authority had $67,300 and $94,350 in outstanding commercial paper as of June 30, 2016 and 2015, respectively.

(b) Debt Refundings

On October 14, 2015, the Authority issued Senior Sales Tax Series 2015A and Series 2015B for $358,405. Principal is payable on July 1, 2019 through July 1, 2045. The first interest payment on these bonds is January 1, 2016. The Series 2015A sales tax bonds were issued for use to finance systemwide improvements, vehicle replacements and other capital projects. The 2015B sales tax bonds, along with other funds on hand, were issued to refund $57,880 of 2006 Series C Senior Sales Tax Bonds, $55,500 of 2005 Series A Assessment Bonds, and $83,035 of $2008 Series A Assessment Bonds.

The proceeds of the 2015B bonds of $180,550 plus a premium of $31,086 were deposited into an irrevocable trust to execute an 'in-substance' defeasance of the previously outstanding 2005 Series A Assessment bonds ($55,500); 2006 Series C Senior Sales Tax bonds ($57,880); and 2008 Series A Assessment bonds ($83,035). The cash flow from the 2015B (refunding bonds) was $294,632 and the cash flow from the refunded bonds was $325,954 resulting in a cash flow savings of $31,322. The present value savings on the refunding was $19,405. The accounting loss on the refunding of $11,887 was recorded as deferred outflow and will be amortized over the future life of the bonds.

No bonds were refunded by the Authority in fiscal year 2015.

In prior years, the Authority defeased in substance several GTS, Sales Tax Series, and Assessment Series Bonds by placing the proceeds of new bonds or available cash in an irrevocable trust fund to provide for future debt service payments on the old debt. Accordingly, the trust account asset and the liability for the defeased bonds are not included in the accompanying financial statements. On June 30, 2016 and 2015, $422,655 and $642,135, respectively, of all bonds are considered defeased in-substance and are still outstanding.

(c) Derivative Instruments

The Authority has entered into interest rate swaps. When the Authority has entered into Swaps, the Authority has done so in order to: (1) provide lower cost fixed rate financing for its capital needs through synthetic fixed rate structures; (2) lock in long term fixed rate returns on invested assets in its required reserve funds; (3) create synthetic refinancing with cash flow savings realized as the Authority designates; or (4) create a synthetic fixed rate for the purchase of vehicular fuel for fixed periods of time rather than being exposed to unpredictable variations in fuel prices on the spot market. All Swaps for which the Authority received an upfront payment are considered hybrid instruments. The premiums/up-front payments are reported as a borrowing and included in the long term liability unearned revenue on the statements of net position and the Swaps are reported based on the “at the market” rates at the time of execution.

(Dollars in thousands)

Summary of Swap Transactions by Category

Synthetic Fixed Rate Swap Transactions

Derivative item	Type	Objective	Effective date	Notional amount	Term. date	Fixed payable swap rate	Variable receivable swap rate	Upfront payment from counterparty	Fair value at June 30 2016	Fair value at June 30 2015
Cash flow hedges:										
1	Pay – fixed interest rate swap	Hedge changes in cash flows on the GTS Series 2000 VRDO	July 2001	$ 174,360	2030	5.00%	67% of LIBOR		$ —	(39,858)
3	Pay – fixed interest rate swap	Hedge changes in cash flows on a portion of the Senior Sales Tax Series 2003 C	February 2004	25,005	2020	4.13	CPI+79 basis points		(1,565)	(2,080)
4	Pay – fixed interest rate swap	Hedge changes in cash flows on a portion of the Assessment Series 2006 A	October 2008	19,260	2024	4.67	CPI+123 basis points		—	(1,804)
5	Pay – fixed interest rate swap	Hedge changes in cash flows on a portion of the Assessment Series 2006 A	October 2008	5,000	2025	4.66	CPI+123 basis points		—	(493)
6	Pay – fixed interest rate swap	Hedge changes in cash flows on the Senior Sales Tax Series 2008 A-1	October 2008	131,775	2021	3.834	SIFMA		—	(14,016)
7	Pay – fixed interest rate swap	Hedge changes in cash flows on the Senior Sales Tax Series 2008 A-2	October 2008	122,500	2026	3.083	62% of LIBOR plus 24 basis points		—	(15,647)
8	Pay – fixed interest rate swap	Hedge changes in cash flows on the Senior Sales Tax Series 2010 A	December 2001	79,645	2030	5.61	SIFMA		(34,892)	(28,606)
									(36,457)	(102,504)
Investment derivatives:										
2	Pay – fixed interest rate swap (a)	Originally to hedge changes in cash flows on variable rate debt	December 2001	75,480	2022	5.20	SIFMA		(9,618)	(10,742)
									(9,618)	(10,742)
									$ (46,075)	(113,246)

(a) The 2003 B-1 and 2003 B-2 hedged bonds were legally redeemed in March 2008 through the issuance of commercial paper.

The aggregate fair value balance of the derivative instruments at June 30, 2016 and 2015 is $(46,075) and $(113,246), respectively, and is reflected on the Authority's statements of net position as a liability for derivative instruments. Of this liability, $(36,457) and $(102,504) at June 30, 2016 and 2015, respectively, were offset by deferred outflows of resources from derivative instruments that qualify for hedge accounting. As of June 30, 2016 and 2015, the Authority determined that the investment derivative instrument does not meet the criteria for hedge accounting. Accordingly, the change in fair value of these swaps is reported within nonoperating revenue (expense) on the statements of revenue, expenses, and changes in net position.

The fair values of the interest rate swaps were calculated by a third party derivative advisor where each leg of the swap is valued utilizing the present value of expected future cash flows based on the contractual terms of each swap or an "at the market rate" in accordance the requirements of Governmental Accounting Standards Board ("GASB"), Statements. Expected cash flows are discounted using the U.S. Dollar Swap curve provided by independent third parties such as Bloomberg.

(Dollars in thousands)

During 2016 the Authority terminated several swaps by making net payments to the counterparties totaling $73,732 (a payment of $78,865 offset by a receipt of $5,133). This amount is presented as nonoperating expense in the statement of revenues, expenses and changes in net position.

Swap Payments and Associated Debt

As of June 30, 2016, debt service requirements on the 2003 Series C Senior Sales Tax Bonds and net swap payments, applying the fixed rate on the swap of 4.13% and assuming CPI rate of 1.75% plus 79 basis points through the term of the swap, are as follows. As rates vary, variable interest rate payments on the 2003 Series C bonds and net swap payments will vary.

Fiscal year(s) ending June 30		2003 Series C Senior Sales Tax Bonds principal	2003 Series C Senior Sales Tax Bonds interest	Interest rate swap, net	Total
2017	$	—	798	398	1,196
2018		—	798	398	1,196
2019		—	798	398	1,196
2020		—	798	398	1,196
2021		25,005	798	398	26,201
	$	25,005	3,990	1,990	30,985

As of June 30, 2016, debt service requirements on 2010 Series A Senior Sales Tax Bonds and net swap payments applying the fixed rate on the swap of 5.61% and assuming SIFMA index rate is 0.417% and the variable rate on the 2010 Series A Senior Sales Tax Bonds is 0.41% plus 20 basis points through the term of the swap, are as follows. As rates vary, variable interest rate payments on the 2010 bonds will vary.

Fiscal year (s) ending June 30		2010 Series A Senior Sales Tax Bonds principal	2010 Series A Senior Sales Tax Bonds interest	Interest rate swap, net	Total
2017	$	—	486	4,142	4,628
2018		—	486	4,142	4,628
2019		—	486	4,142	4,628
2020		—	486	4,142	4,628
2021		—	486	4,142	4,628
2022–2026		19,590	2,252	19,196	41,038
2027–2031		60,055	775	6,601	67,431
	$	79,645	5,457	46,507	131,609

Risk Disclosure

Credit Risk – Because all of the Authority's Swaps rely upon the performance of the third parties who serve as swap counterparties, the Authority is exposed to credit risk, or the risk that a swap counterparty fails to perform according to its contractual obligations. The appropriate measurement of exposure to this risk at the reporting date is the fair value of the swaps in an asset position, as shown in the columns labeled fair value in the tables above. To mitigate credit risk, the Authority maintains strict credit standards for swap counterparties. All swap counterparties for long-term swaps are rated in the A category by both Moody's and S&P. To further mitigate credit risk, the Authority's swap documents require counterparties to post collateral for the Authority's benefit if they are downgraded below a designated threshold.

The following represents the credit ratings of the counterparties as of June 30, 2016:

Derivative swap item	Counterparty credit rating Moody's/S&P
Derivative 2	Aa3/A+
Derivative 3	A1/A
Derivative 8	Aa3/A+

Basis Risk – The Authority is exposed to basis risk when the floating rate the Authority receives under the swaps is different from the variable rate on the associated bonds. Should this occur, the expected savings may not be realized. Refer to tables above for basis for swap and bond variable rates and the actual rates in place at year-end.

Termination Risk – The Authority's swap agreements do not contain any out-of-the-ordinary termination events that would expose it to significant termination risk. In keeping with market standards, the Authority or the counterparty may terminate each swap if the other party fails to perform under the terms of the contract. In addition, the swap documents allow either party to terminate in the event of a significant loss of creditworthiness. If at the time of the termination a swap has a negative value, the Authority would be liable to the counterparty for a payment equal to the fair value of such swap.

Rollover Risk – Rollover risk is the risk that occurs when the term of the swap does not match the term or maturity of the debt associated with the hedge. The Authority is subject to rollover risk for those swaps that hedge its variable rate demand obligations in the event the Authority is not able to remarket those instruments as anticipated.

(d) Demand Bonds

The 2000 Series and 2008 Series A bonds were issued as VRDOs. MBTA's ability to purchase these bonds is secured through Standby Bond Purchase Agreements ("SBPAs") with nationally recognized financial institutions that expire in March 31, 2017 and September 28, 2018. Under generally accepted accounting principles, VRDOs are generally classified as current liabilities if, among other things, the supporting security agreements expire in less than one year of the date of the financial statements. Although the 2008 Series VRDOs are supported by a SBPA that expires on March 31. 2017, the bonds are also subject to a 'Mandatory Tender for Purchase' requirement that becomes effective prior to the expiration of the SBPA. As such, these amounts have been presented as long term, rather than current, liabilities in the accompanying financial statements.

(Dollars in thousands)

(9) Commitments and Contingencies

(a) Capital Investment Program ("CIP")

The Authority's continuing CIP for mass transportation has projects in service and in various stages of approval, planning, and implementation. The following tables show, as of June 30, 2016 and 2015, capital project costs approved, expenditures against these projects, and estimated costs to complete these projects, as well as the major funding sources:

Funding source	Approved project costs	Expenditures through June 30, 2016	Unexpended costs
Federal grants	$ 7,898,863	7,484,219	414,644
State and local sources	3,999,272	2,987,184	1,012,088
Authority bonds	6,209,086	5,795,649	413,437
Total	$ 18,107,221	16,267,052	1,840,169

Funding source	Approved project costs	Expenditures through June 30, 2015	Unexpended costs
Federal grants	$ 7,509,940	7,199,454	310,486
State and local sources	3,139,994	2,523,448	616,546
Authority bonds	6,150,412	5,803,758	346,654
Total	$ 16,800,346	15,526,660	1,273,686

The terms of the federal grant contracts require the Authority to, in part, utilize the equipment and facilities for the purposes specified in the grant agreement, maintain these items in operation for a specified time period, which normally approximates the useful life of the equipment, and comply with the Equal Employment Opportunity and Affirmative Action programs required by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users ("SAFETEA-LU"). Failure to comply with these terms may jeopardize future funding and require the Authority to refund a portion of these grants to the Federal Transit Administration ("FTA"). In management's opinion, no events have occurred that would result in the termination of these grants or require the refund of a significant amount of funds received under these grants.

Other cases and claims include disputes with contractors and others arising out of the Authority's CIP. In the opinion of the general counsel to the Authority, amounts reasonably expected to be paid by the Authority would be within the scope of grant funds and other funds available to the Authority for the respective projects.

The Authority has entered into several long-term contracts to purchase coaches, locomotives, buses, rapid transit cars, and other transportation equipment. Unexpended amounts under these contracts total approximately $1,309,893 and $934,095 at June 30, 2016 and 2015, respectively.

(b) Legal and Other

The Authority is involved in numerous lawsuits, claims, and grievances arising in the normal course of business, including claims for personal injury and personnel practices, property damage, and disputes over eminent domain proceedings. In the opinion of the general counsel to the Authority, payments of claims by the Authority, for amounts not covered by insurance, in the aggregate, are not expected to have a material adverse effect on the Authority's financial position.

The Authority participates in a number of federally assisted grant programs. These programs are subject to financial and compliance audits by the grantors or their representatives. In the opinion of the Authority's management, liabilities resulting from such disallowed expenditures, if any, will not be material to the accompanying financial statements.

(10) Risk Management

The Authority is exposed to various risks of loss related to general liability, property and casualty, workers' compensation, unemployment, and employee health insurance claims.

Buildings are fully insured to the extent that losses exceed the self-insured retention of $2,500 for buildings valued over $25,000 and the self-insured retention of $1,000 for buildings valued under $25,000 effective March 1, 2014. The Authority is self-insured for workers' compensation, unemployment claims, vehicle damage and loss, and health insurance. The Authority paid 85% of all health premiums up to a maximum of $200 per individual for all Blue Cross plans and $100 per individual for Harvard and Tufts plans who remained under the self-insured health plans until June 30, 2015. The Authority pays 75% to 80% of all healthcare premiums for active employees within the health insurance plans administered by the Group Insurance Commission of the Commonwealth ("GIC"). The Authority pays 80% to 90% of all health premiums for retired employees within the health insurance plans administered by the GIC. Stop-loss insurance is carried on health insurance claims in excess of these amounts per individual per illness until December 31, 2015.

The Authority self-funds a $7,500 per occurrence deductible for general liability. The Authority has a program of excess public liability insurance to provide for $67,500 of layered coverage on a per occurrence and annual aggregate basis. In the opinion of the general counsel to the Authority, payments of claims by the Authority for amounts not covered by insurance, in the aggregate, are not expected to have a material adverse effect on the Authority's financial position.

(Dollars in thousands)

During fiscal years 2016 and 2015, expenditures for claims and judgments, excluding workers' compensation, and health and life, were $9,738 and $5,867, respectively. Expenses for claims related to workers' compensation were $13,349 and $14,581, and expenditures for the self-insured health plans were $62,976 and $76,432 for the years ended June 30, 2016 and 2015, respectively.

The requirements of Governmental Accounting Standards Board (GASB), Statements require that liabilities for self-insured claims be reported if it is probable that a loss has been incurred and the amount can be reasonably estimated. These losses include an estimate of claims that have been incurred but not reported. The Authority reserves such liabilities, which consist of workers' compensation, health claims, and injuries and damages (legal claims) as accrued expenses as of June 30, 2016, 2015, and 2014. Changes in the self-insurance liabilities in fiscal years 2016, 2015, and 2014 were as follows:

		2016	2015	2014
Liability, beginning of year	$	119,498	111,430	124,592
Provisions for claims		79,019	104,948	149,081
Payments		(86,063)	(96,880)	(162,243)
Liability, end of year	$	112,454	119,498	111,430

(11) Environmental Remediation Obligations

Effective July 1, 2008, the Authority implemented GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*. Statement No. 49 identifies the circumstances under which a government entity would be required to report a liability related to pollution remediation. The statement requires a government entity to estimate its expected outlays for pollution remediation if it knows that a site is polluted based on specific recognition triggers and disclose those obligations associated with cleanup efforts.

The Authority is responsible for the cleanup of leaking fuel storage tanks in facilities owned by the Authority, or parcels of land acquired as part of transit expansions. The Authority is currently managing six active storage tank sites in various stages of remediation and monitoring. The Authority has a number of years' experience in managing these cleanups and the assessment of costs for these types of cleanups. The amount of the estimated pollution remediation liability assumes there will be no major increases in the cost of providing these cleanup services.

The Authority is responsible for a facility where Polychlorinated Biphenyls ("PCB"s) have been detected in the building caulk. Caulk containing PCBs is frequently found in buildings built or renovated between 1950 and 1978. PCB containing caulk is no longer manufactured and is required to be removed under federal regulations. The maintenance building was found to contain such PCB containing caulk and as a result, a remediation program is now underway as part of the rehabilitation of the building.

(Dollars in thousands)

During the year ended June 30, 2016 and 2015, the following changes occurred in the liabilities:

		Balance as of July 1, 2015	Additions/ revisions	Payments/ revisions	Balance as of June 30, 2016
Storage tank remediation sites	$	13,102	—	595	12,507
Contamination soil sites		13,000	—	—	13,000
Sites with PCB remediation		10,500	—	1,796	8,704
Vapor intrusion 21E		1,500	—	—	1,500
	$	38,102	—	2,391	35,711

		Balance as of July 1, 2014	Additions/ revisions	Payments/ revisions	Balance as of June 30, 2015
Storage tank remediation sites	$	14,154	—	1,052	13,102
Contamination soil sites		2,000	11,000	—	13,000
Sites with PCB remediation		10,500	—	—	10,500
Vapor intrusion 21E		1,500	—	—	1,500
	$	28,154	11,000	1,052	38,102

The payments for remediation costs combined with revised cost completion estimates totaling ($2,391) and $9,948 in fiscal year 2016 and 2015, respectively, with the change in the liability in each fiscal year recorded in the other operating expenses in the statements of revenue, expenses, and changes in net position. The accrued total liability as of June 30, 2016 and 2015 included in the long-term accrued liabilities in the statement of net position was $35,711 and $38,102, respectively.

(12) Commuter Railroad

Under the Authority's Enabling Act, Massachusetts General Laws, Chapter 161A, Section 3(f), the Authority may enter into agreements with private transportation companies, railroads, and other concerns providing for joint or cooperative operation of any mass transportation facility and for operation and use of any mass transportation facility and equipment for the account of the Authority.

On February 5, 2014 the Authority and Keolis Commuter Services ("Keolis") entered into an operating agreement effective July 1, 2014 to provide commuter railroad service over the Authority's rail lines. The contract is for a period of eight (8) years, through June 30, 2022. The Authority has a fixed base contract amount of $2,686,342 over the eight year term of the agreement. The contract also has a provision for an extension period, comprised of the option to extend for no less than two but no greater than four years extension. The fixed base contract over the term of the contract and four year extension period termination date of June 30, 2026 is $4,258,131.

(Dollars in thousands)

(13) Retirement Plans

The Authority provides retirement benefits to employees through six defined benefit retirement plans and one defined contribution plan: The MBTA Retirement Fund, the MBTA Police Association Retirement Plan, the MBTA Deferred Compensation Plan, the MBTA Executive Deferred Compensation Plan, the MBTA Executive Deferred Compensation Annuity Plan, the MBTA Excess Benefit Annuity Plan and the MBTA Deferred Compensation Savings Plan.

The MBTA Retirement Fund, a single employer plan, covers all employees except the MBTA police, who are covered separately, and certain executives who elect coverage under an alternate plan. The MBTA Retirement Fund and the MBTA Police Association Retirement Plan, a single employer plan, both provide retirement, disability, and death benefits to their members. The MBTA Retirement Fund issues separately audited financial statements that may be obtained by writing to One Washington Mall, Boston, Massachusetts 02108, or by calling (617) 316 3800. The MBTA Police Association Retirement Plan also issues separately audited financial statements that may be obtained by writing to the Board of Directors, MBTA Police Association Retirement Plan, P.O. Box 2215, Hyannis, Massachusetts 02601.

The MBTA Deferred Compensation Plan, a single employer plan, provides supplemental pension benefits for certain Local 453, Steelworkers, Transit Employee Administrators (collective bargaining units) and executive employees after retirement. Employees may participate in both the MBTA Retirement Fund and the MBTA Deferred Compensation Plan. The MBTA Deferred Compensation Plan is unfunded and does not issue separately audited financial statements.

The remaining defined benefit plans are single employer plans that are unfunded and do not issue separately audited financial statements. These plans collectively have less than ten active and retired participants. A copy of the actuarial report for any of these retirement plans can be obtained by writing to the Office of the Chief Financial Officer, MBTA, Ten Park Plaza, Boston, Massachusetts 02116.

Employees covered by benefit terms. At June 30, 2016, the following employees were covered by the benefit terms:

	MBTA Retirement Fund	MBTA Police Association Retirement Fund	MBTA Deferred Compensation Plan
Retired employees or beneficiaries receiving benfits	6,472	88	911
Active employees	5,885	261	686
Inactive employees entitled to, but not yet receiving benefits	88	14	—
Totals:	**12,445**	**363**	**1,597**

(Dollars in thousands)

(a) Funding Policy and Annual Pension Cost

The pension agreements between the Authority and Local 589, dated July 1, 2014 for the MBTA Retirement Fund and the MBTA Police Association dated June 30, 2003, designates that the board of trustees of each retirement plan establish the contribution requirements; however, the Authority may amend these requirements.

The historical MBTA Retirement Fund contribution rates are as follows:

		Contribution Percentage		
Valuation Date	Effective Date	Employer	Employee	Total
12/31/2013	7/1/2014	16.0511%	5.7989%	21.8500%
12/31/2014	7/1/2015	16.0286%	5.7914%	21.8200%
12/31/2015	7/1/2016	18.0386%	6.4614%	24.5000%

Actual contributions made in were in accordance with these contribution requirements.

The historical MBTA Police Association Retirement Plan contribution rates are as follows:

		Contribution Percentage		
Valuation Date	Effective Date	Employer	Employee	Total
12/31/2013	7/1/2014	13.8900%	8.5100%	22.4000%
12/31/2014	7/1/2015	14.6200%	8.3600%	22.9800%

Actual contributions of 12.67% (employer) and 7.28% (employee) for December 31, 2014 were less than the actuarial contribution requirements above. Actual combinations for previous years were equal to the actuarial requirement above.

Contributions are not required to be made for the MBTA Deferred Compensation Plan. Rather benefit payments are made on a “pay as you go” basis.

Net Pension Liability

The Authority’s June 30, 2016 net pension liability for each retirement plan was measured as of December 31, 2015, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that same date.

(Dollars in thousands)

The Authority's June 30, 2015 net pension liability for each retirement plan was measured as of December 31, 2014, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2013.

Actuarial assumptions. The total pension liability in the December 31, 2015 actuarial valuations were determined using the following actuarial assumptions, applied to all periods included in the measurement:

Pension	**MBTA Retirement Fund**	**MBTA Police Association Plan**	**MBTA Deferred Compensation Plan**
Actuarial assumptions:			
Inflation rate	3.00%	3.00%	3.00%
Salary increases	4.00	3.50	4.00
Investment rate of return	8.00*	7.00*	3.20*

*Net of pension plan investment expense, including inflation

For the December 31, 2015 actuarial valuation, mortality rates are used for all active employees and were based on the RP-2000 Blue Collar Mortality Tables with generational projection using the Scale BB. The RP-2000 Blue Collar Tables for Health Males projected by Scale BB generationally are the basis for all retirees and deferred vested participants. The RP-2000 Blue Collar Tables for Health Females projected by Scale BB generationally are the basis for all beneficiary participants. The RP-2000 Tables for Disabled Lives projected by Scale BB generationally are used for the period after disability retirement. Among pre-retirement deaths, 7.5% are assumed to qualify for accidental death benefits.

The actuarial assumptions used in the December 31, 2015 valuation for the MBTA Retirement Fund were based on the results of an actuarial experience study for the four-year period ending December 31, 2014. There was no separate experience actuarial study performed for the MBTA Police Association Plan or the MBTA Deferred Compensation Plan.

For the December 31, 2013 actuarial valuation and the rollforward to December 31, 2014, mortality rates were based on the UP 1994 Mortality Tables for Males or Females, as appropriate, projected to year 2020 with adjustments for mortality improvements based on Scale AA. A special mortality table is used for the period after disability retirement. Among pre-retirement deaths, 7.5% are assumed to qualify for accidental death benefits.

The actuarial assumptions used in the December 31, 2014 valuations were based on the results of an actuarial experience study for the five-year period ending December 31, 2010.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension 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. Best estimates of arithmetic real rates of return for each major asset class included in the target allocation as of December 31, 2015 and 2014 are summarized in the following tables:

(Dollars in thousands)

MBTA Retirement Fund

	2015	
	Target Allocation	**Long Term Expected Real Rate of Return**
Equity	43%	8.46%
Fixed Income	27	1.83
Alternatives	30	7.92
Total	100%	

	2014	
	Target Allocation	**Long Term Expected Real Rate of Return**
Equity	43%	8.46%
Fixed Income	27	1.83
Alternatives	30	7.92
Total	100%	

(Dollars in thousands)

MBTA Police Association

	2015	
	Target Allocation	Long Term Expected Real Rate of Return
Equity	65%	8.46%
Fixed Income	30	1.83
Alternatives	5	7.92
Total	100%	

	2014	
	Target Allocation	Long Term Expected Real Rate of Return
Equity	65%	8.46%
Fixed Income	30	1.83
Alternatives	5	7.92
Total	100.0%	

Discount rate. The discount rate used to measure the total pension liability as of December 31, 2015 and 2014 was 8.0% for the MBTA Retirement Fund while the discount rate for the MBTA Police Association Retirement Plan was 7.0%. The projection of cash flows used to determine the discount rate assumed that employee contributions will continue to be made in accordance with the current funding policy. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current MBTA Retirement Fund and MBTA Police Association Retirement Plan members. The discount rate used to measure the total pension liability for the MBTA Deferred Compensation Plan was 3.20%. Since this plan is unfunded, the assumed discount rate has been determined in accordance with the method prescribed by GASB No. 68 and is based on the S&P Municipal Bond 20 Year Grade Rate Index, whose yield to maturity was 3.20% and 3.34% as of December 31, 2015 and 2014.

(Dollars in thousands)

Change in the Net Pension Liability – MBTA Retirement Fund

		Increase (Decrease)		
		Total Pension Liability (a)	**Plan Fiduciary Net Position (b)**	**Net Pension Liability (a)-(b)**
Balances at December 31, 2013	$	2,364,133	1,606,684	757,449
Changes for the year:				
Service cost		34,501	—	34,501
Interest		184,667	—	184,667
Difference between expected and actual experience		48,560	—	48,560
Contributions - employer		—	70,603	(70,603)
Contributions - employee		—	25,318	(25,318)
Net investment Income		—	73,543	(73,543)
Benefit payments, including refund of employee contributions		(184,130)	(184,130)	—
Administrative expense		—	(4,053)	4,053
Net changes		83,598	(18,719)	102,317
Balances at December 31, 2014	$	2,447,731	1,587,965	859,766
Changes for the year:				
Service cost		37,305	—	37,305
Interest		191,392	—	191,392
Difference between expected and actual experience		31,325	—	31,325
Changes in assumptions		(6,762)	—	(6,762)
Contributions - employer		—	73,374	(73,374)
Contributions - employee		—	26,511	(26,511)
Net investment Income		—	4,712	(4,712)
Benefit payments, including refund of employee contributions		(188,906)	(188,906)	—
Administrative expense		—	(5,808)	5,808
Net changes		64,354	(90,117)	154,471
Balances at December 31, 2015	$	2,512,085	1,497,848	1,014,237

(Dollars in thousands)

Change in the Net Pension Liability – MBTA Police Association Retirement Plan

	Increase (Decrease)		
	Total Pension Liability (a)	**Plan Fiduciary Net Position (b)**	**Net Pension Liability (a)-(b)**
Balances at December 31, 2013	$ 88,103	68,074	20,029
Changes for the year:			
Service cost	1,772	—	1,772
Interest	6,173	—	6,173
Differences between expected and actual experience	(60)	—	(60)
Contributions - employer	—	2,280	(2,280)
Contributions - employee	—	1,337	(1,337)
Net investment Income	—	3,966	(3,966)
Benefit payments, including refund of employee contributions	(3,417)	(3,417)	—
Administrative expense	—	(122)	122
Net changes	4,468	4,044	424
Balances at December 31, 2014	$ 92,571	72,118	20,453
Changes for the year:			
Service cost	1,879	—	1,879
Interest	6,490	—	6,490
Contributions - employer	—	2,512	(2,512)
Contributions - employee	—	1,513	(1,513)
Net investment Income	—	403	(403)
Difference between expcted and actual experience	(5,058)		(5,058)
Change in assumptions	784		784
Benefit payments, including refund of employee contributions	(3,542)	(3,542)	—
Administrative expense	—	(138)	138
Net changes	553	748	(195)
Balances at December 31, 2015	$ 93,124	72,866	20,258

(Dollars in thousands)

Change in the Net Pension Liability – MBTA Deferred Compensation Plan

	Increase (Decrease)		
	Total Pension Liability (a)	**Plan Fiduciary Net Position (b)**	**Net Pension Liability (a)-(b)**
Balances at December 31, 2013	$ 80,335	—	80,335
Changes for the year:			
Service cost	1,715	—	1,715
Interest	2,592	—	2,592
Differences between expected and actual experience	2,767	—	2,767
Contributions - employer	—	5,517	(5,517)
Benefit payments, including refund of employee contributions	(5,517)	(5,517)	—
Net changes	1,557	—	1,557
Balances at December 31, 2014	$ 81,892	—	81,892
Changes for the year:			
Service cost	1,382	—	1,382
Interest	2,615	—	2,615
Differences between expected and actual experience	4,482	—	4,482
Changes in assumptions	1,260	—	1,260
Changes in benefits	614	—	614
Contributions - employer	—	5,648	(5,648)
Other	(809)		(809)
Benefit payments, including refund of employee contributions	(5,648)	(5,648)	—
Net changes	3,896	—	3,896
Balances at December 31, 2015	$ 85,788	—	85,788

(Dollars in thousands)

Sensitivity of net pension liability to changes in the rate. The following presents the net pension liability of the Authority, calculated using the discount rates disclosed as well as what the Authority's net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate as of December 31, 2015 and 2014:

	2015						
	Current Rate		1% Decrease of Current Rate		Current Discount Rate		1% Increase of Current Rate
MBTA Retirement Fund	8.00%	$	1,269,791	$	1,014,237	$	796,832
MBTA Police Assoc. Retirement Plan	7.00%		32,548		20,258		10,086
MBTA Deferred Compensation	3.20%		95,769		85,788		77,459

	2014						
	Current Rate		1% Decrease of Current Rate		Current Discount Rate		1% Increase of Current Rate
MBTA Retirement Fund	8.00%	$	1,097,133	$	859,766	$	656,157
MBTA Police Assoc. Retirement Plan	7.00%		32,261		20,453		10,593
MBTA Deferred Compensation	3.34%		90,885		81,892		74,327

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

For the year ended June 30, 2016 and 2015 the Authority recognized pension expense of $133,297; $2,403; and $6,642; and $92,973; and $2,110; and $4,860 for the MBTA Retirement Fund, the MBTA Police Association Retirement Plan and the MBTA Deferred Compensation Plan, respectively. At June 30, 2016 the Authority reported deferred outflows of resources related to these pensions from the following sources:

		MBTA Retirement Fund		MBTA Police Assoc. Retirement Plan		MBTA Deferred Compensation Plan		Total
Deferred Outflow/(Inflow)								
Net difference between projected and actual earnings on pension plan investments	$	125,708	$	4,213	$	—	$	129,921
Changes in assumptions		(5,410)		672		945		(3,793)
Differences between expected and and actual experience		54,196		(4,378)		4,341		54,159
	$	174,494	$	507	$	5,286	$	180,287

(Dollars in thousands)

Amounts reported as deferred outflows of resources related to pensions will be recognized in pension expense as follows:

	MBTA Retirement Fund	MBTA Police Assoc. Retirement Plan	MBTA Deferred Compensation Plan
Year ended June 30:			
2017	$ 48,619	$ 475	$ 1,925
2018	48,619	475	1,925
2019	48,619	475	1,436
2020	28,637	312	—
2021	—	(619)	—
2022	—	(611)	—
Totals:	$ 174,494	$ 507	$ 5,286

The Authority has also recorded a deferred outflow of $39,653 to recognize contributions to the plans made from January 1 through June 30 of 2016 and 2015 as follows:

	2016	2015
MBTA Retirement Fund	$ 35,543	35,267
MBTA Police Association Retirement Plan	1,278	1,153
MBTA Deferred Compensation Plan	2,832	2,898
Total	$ 39,653	39,318

Payable to the Pension Plans

At June 30, 2016 and 2015 the Authority reported a payable for $418 and $542, respectively, for the outstanding amount of contributions to pension plans required for the years ended June 30, 2016 and 2015.

Restatement of Net Pension

The implementation of GASB No. 68 required a restatement of the Authority's net position as of July 1, 2015 of $682,374 as follows:

Net pension liability	$ 857,812
Deferred outflows	(37,114)
Net pension obligation	(138,324)
Total restatement - July 1, 2015	$ 682,374

(b) The MBTA Deferred Compensation Savings Plan

The Authority provides a defined contribution retirement plan for nonunion and certain grandfathered union management not participating in the MBTA Retirement Fund. Authority employee trustees administer the plan and recommend benefit amendments that require approval from the Authority's general manager. The plan requires members to contribute 5.791% and 5.799% of total covered payroll for the years ended June 30, 2016 and 2015, respectively, with the Authority contributing 8%. The Plan had 299 and 282 members as of June 30, 2016 and 2015, respectively. The cost of the Plan was $846 and $818 for the years ended June 30, 2016 and 2015, respectively. Member contributions vest to plan members immediately, while contributions made by the Authority vest to plan members as follows: 50% after three years, 75% after four years, and 100% after five years of credited service. The total asset balances of $31,227 and $31,054 as of June 30, 2016 and 2015, respectively, were held by a third party administrator who allocates the assets of fully funded member account balance at the direction of individual member discretion.

(14) Other Postemployment Benefits

In addition to providing the pension benefits described, the Authority provides OPEB for retired employees under any of the medical benefit programs then offered and available by the Authority. The benefits, benefit levels, employee contributions, and employer contributions are governed by the Authority, collective bargaining agreements, and state statute. As of the July 1, 2015 actuarial valuation, the plan has 8,108 retired and inactive participants and 6,420 active employees that meet the eligibility requirements for participation in the plan. The plan does not issue a separate financial report.

(a) Benefits Provided

The Authority provides medical, prescription drug, mental health/substance abuse, and life insurance to retirees and their covered dependents. All active employees who retire from the Authority and meet the eligibility criteria will receive these benefits.

(b) Funding Policy

As part of the 2009 Transportation Reform passed by the legislature, all Massachusetts Bay Transportation Authority employees, retirees and survivors joined the GIC for health, life, and other insurance benefits. This legislation provided for different enrollment and effective dates for health coverage across the Authority. A total of 4,301 affiliated active employees and retirees enrolled in the GIC as of June 30, 2014. On July 1, 2014, a total of 6,230 of employees and retirees transferred to GIC benefit plans. The remaining employees transitioned on July 1, 2015.

Retirees pre- and post-65 entering into GIC health insurance coverage with a retirement date on or before July 1, 1994 contribute 10% of the cost of the health plan. Retirees who retired after July 1, 1994 and filed for retirement prior to August 10, 2009 contribute 15% of the cost of the health plan. Retirees who retired after July 1, 1994 and filed for retirement on or after August 10, 2009 but on or before October 1, 2009 with a retirement date on or before January 31, 2010 contribute 15% of the cost of the health plan. Retirees who file for retirement after October 1, 2009 will contribute 20% of the cost of the health plan. The Authority contributes the remainder of the health plan costs on a pay-as-you-go basis.

(Dollars in thousands)

(c) Annual OPEB Costs and Net OPEB Obligation

The Authority's annual OPEB expense is calculated based on the Actuarially Required Contribution ("ARC") of the employer, an amount actuarially determined in accordance with the parameters of GASB Statement No. 45. The July 1, 2014 actuarial valuation established the ARC for fiscal year 2015 and the July 1, 2015 actuarial valuation established the ARC for fiscal year 2016. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover the normal cost each year and amortizes the unfunded actuarial liability over a period of 30-years. The following table shows the components of the Authority's annual OPEB cost for the years ended June 30, 2016 and 2015, the amount actually contributed to the plan, and the change in the Authority's net OPEB obligation.

		2016	**2015**
ARC	$	219,090	214,901
Interest on net OPEB obligation		24,678	20,495
Amortization adjustment to ARC		(52,605)	(42,331)
Annual OPEB cost		191,163	193,065
Contributions made		(59,737)	(49,831)
Change in net OPEB obligation		131,426	143,234
Net OPEB obligation – beginning of year		845,127	701,893
Net OPEB obligation – end of year	$	976,553	845,127

The Authority's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation were as follows:

Fiscal year ended		**Annual OPEB cost**	**Percentage of OPEB cost contributed**		**Net OPEB obligation**
2016	$	191,163	31.2%	$	976,553
2015		193,065	25.8		845,127
2014		147,517	39.8		701,893

The Authority's net OPEB obligation as of June 30, 2016 and 2015 is recorded as "Other postemployment benefits" line item.

(Dollars in thousands)

(d) Funded Status and Funding Progress

The funded status of the plan, based on an actuarial valuation as of July 1, 2015 and 2014, is as follows:

		2016	2015
Actuarial accrued liability ("AAL")	$	2,266,407	2,315,626
Actuarial value of plan assets		—	—
Unfunded actuarial accrued liability ("UAAL")	$	2,266,407	2,315,626
Funded ratio (actuarial value of plan assets/AAL)		—%	—%
Covered payroll (active plan members)	$	465,032	442,214
UAAL as a percentage of covered payroll		487.4%	523.6%

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and healthcare cost trends. Amounts determined regarding the funded status of the plan and the ARCs of the Authority are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, presents multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

(e) Actuarial Methods and Assumptions

Projections of benefits for financial reporting purposes are based on the plan as understood by the Authority and the 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 Authority and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

In the July 1, 2015 actuarial valuation, the projected unit credit cost method was used. The actuarial value of assets was not determined as the Authority has not advance funded its obligation. The actuarial assumptions included a 2.92% investment rate of return. Also, the actuarial assumption for the annual healthcare cost trend rate is 6.4% in year one to a 5.0% long-term trend rate for all healthcare benefits in year ten and thereafter. The amortization costs for the initial unfunded actuarial accrued liability (UAAL) is a level dollar closed amortization for a period of 30 years.

(f) Transit Employees Health and Welfare Trust

In fiscal 2015 the Authority and Local 589 (Local Union 589, Amalgamated Transit union, AFL-CIO and CLC) as a result of an arbitration award established a separate trust fund, the Transit Employee Health and Welfare Trust Fund (the "Trust Fund"), to address legislative changes impacting healthcare and other coverage (medical, dental, vision and life insurance) for Local 589 active and retired employees (collectively, the "employees"). The Authority and the employees are required to make contributions to the Trust Fund based on the rates agreed to in the Collective Bargaining Agreement. Contributions, once received by the Trust Fund, must be used exclusively "to provide benefits to eligible participants and/or appropriate administrative or operating expenditures." The Trust allows participation of any Authority employee or retiree.

In fiscal 2016 and 2015, the Authority made contributions to the Trust Fund of $9,472 and $7,765, respectively. The liability for the Authority's obligation for the benefits administered by this Trust Fund is recorded as part of the OPEB liability. Other than the Authority's OPEB liability and required contributions, the activities of the Trust Fund have been excluded from the accompanying financial statements. Since inception, the Authority has provided accounting and administrative services to the Trust without compensation and maintained the activities of the Trust Fund in a separate operating banking account.

(15) Due To the Commonwealth

The Authority had an obligation to the Commonwealth of $15,583 as of June 30, 2016. This amount was paid subsequent to year end.

(16) Subsequent Events

Subsequent to year end, in July 2016, the MBTA issued $119,260 2016 Series A Assessment Bonds and $217,694 2016 Series A (Capital Appreciation Bonds). These bonds were issued to refund debt outstanding at June 30, 2016.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
(A Component Unit of the Massachusetts Department of Transportation)

Required Supplementary Information - MBTA Retirement Fund

Schedule of Changes in Net Pension Liability and Related Ratios

June 30, 2016

(Dollar amounts in thousands)

(Unaudited)

		December 31	
Total Pension Liability		**2015**	**2014**
Service cost	$	37,305	34,501
Interest		191,392	184,667
Differences between expected and actual experience		31,325	48,560
Change in assumptions		(6,762)	—
Benefit payments, including refunds of employee contributions		(188,906)	(184,130)
Net Change in total pension liability		64,354	83,598
Total pension liability – beginning		2,447,731	2,364,133
Total pension liability – ending		2,512,085	2,447,731
Plan Fiduciary Net Position			
Contributions – employers		73,374	70,603
Contributions – employees		26,511	25,318
Net investment income		4,712	73,543
Benefit payments, including refunds of employee contributions		(188,906)	(184,130)
Administrative expenses		(5,808)	(4,053)
Net change in plan fiduciary net position		(90,117)	(18,719)
Plan fiduciary net position – beginning		1,587,965	1,606,684
Plan fiduciary net position – ending		1,497,848	1,587,965
Authority's net pension liability	$	1,014,237	859,766
Plan fiduciary net position as a percentage of the total pension liability		60%	65%
Covered-employee payroll	$	443,238	417,957
Net pension liability as a percentage of covered employee payroll		229%	206%

See accompanying independent auditors' report.

Notes:

Information provided for Required Supplementary Information will be provided for 10 years as the information becomes available

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
(A Component Unit of the Massachusetts Department of Transportation)

Required Supplementary Information - MBTA Police Retirement Plan

Schedule of Changes in Net Pension Liability and Related Ratios

June 30, 2016

(Dollar amounts in thousands)

(Unaudited)

		December 31	
Total Pension Liability		**2015**	**2014**
Service cost	$	1,879	1,772
Interest		6,490	6,173
Differences between expected and actual experience		(5,058)	(60)
Change in assumptions		784	—
Benefit payments, including refunds of employee contributions		(3,542)	(3,417)
Net Change in total pension liability		553	4,468
Total pension liability – beginning		92,571	88,103
Total pension liability – ending		93,124	92,571
Plan Fiduciary Net Position			
Contributions – employers		2,512	2,280
Contributions – employees		1,513	1,337
Net investment income		403	3,966
Benefit payments, including refunds of employee contributions		(3,542)	(3,417)
Administrative expenses		(138)	(122)
Net change in plan fiduciary net position		748	4,044
Plan fiduciary net position – beginning		72,118	68,074
Plan fiduciary net position – ending		72,866	72,118
Authority's net pension liability	$	20,258	20,453
Plan fiduciary net position as a percentage of the total pension liability		78%	78%
Covered-employee payroll	$	16,478	18,207
Net pension liability as a percentage of covered employee payroll		123%	112%

See accompanying independent auditors' report.

Notes:

Information provided for Required Supplementary Information will be provided for 10 years as the information becomes available

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
(A Component Unit of the Massachusetts Department of Transportation)

Required Supplementary Information - MBTA Deferred Compensation Plan

Schedule of Changes in Net Pension Liability and Related Ratios

June 30, 2016

(Dollar amounts in thousands)

(Unaudited)

		December 31	
Total Pension Liability		**2015**	**2014**
Service cost	$	1,382	1,715
Interest		2,615	2,592
Differences between expected and actual experience		4,482	2,767
Change in assumptions		1,260	—
Changes in benefits		614	—
Other Changes		(809)	—
Benefit payments, including refunds of employee contributions		(5,648)	(5,517)
Net Change in total pension liability		3,896	1,557
Total pension liability – beginning		81,892	80,335
Total pension liability – ending		85,788	81,892
Plan Fiduciary Net Position			
Contributions – employers		5,648	5,517
Contributions – employees		—	—
Net investment income		—	—
Benefit payments, including refunds of employee contributions		5,648	(5,517)
Administrative expenses		—	—
Net change in plan fiduciary net position		—	—
Plan fiduciary net position – beginning		—	—
Plan fiduciary net position – ending		—	—
Authority’s net pension liability	$	85,788	81,892
Plan fiduciary net position as a percentage of the total pension liability		—%	—%
Covered-employee payroll	$	56,540	56,042
Net pension liability as a percentage of covered employee payroll		152%	146%

See accompanying independent auditors’ report.

Notes:

Information provided for Required Supplementary Information will be provided for 10 years as the information becomes available

As of December 31, 2015 and 2014, the Deferred Compensation Plan has no assets accumulated in a trust for purposes of making future pension payments

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
(A Component Unit of the Massachusetts Department of Transportation)

Required Supplementary Information - MBTA Retirement Fund

Schedule of Pension Contributions

June 30, 2016

(Dollar amounts in thousands)

(Unaudited)

		2015	2014
Actuarially determined contribution	$	73,359	77,594
Contributions in relation to the actuarially determined contribution		73,374	70,603
Contribution deficiency (excess)	$	(15)	6,991
Covered employee payroll	$	443,238	417,957
Contributions as a percentage of covered employee payroll		16.6%	16.9%

See accompanying independent auditors' report.

Notes:

Information provided for Required Supplementary Information will be provided for 10 years as the information becomes available

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
(A Component Unit of the Massachusetts Department of Transportation)

Required Supplementary Information - MBTA Police Retirement Plan

Schedule of Pension Contributions

June 30, 2016

(Dollar amounts in thousands)

(Unaudited)

		2015	2014
Actuarially determined contribution	$	2,512	2,279
Contributions in relation to the actuarially determined contribution		2,512	2,279
Contribution deficiency (excess)	$	—	—
Covered employee payroll	$	16,478	18,207
Contributions as a percentage of covered employee payroll		15.3%	12.5%

See accompanying independent auditors' report.

Notes:

Information provided for Required Supplementary Information will be provided for 10 years as the information becomes available

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
(A Component Unit of the Massachusetts Department of Transportation)

Required Supplementary Information

Schedule of Funding Progress

June 30, 2016 and 2015

(Dollars in thousands)

(Unaudited)

OPEB Plans

Valuation date	Actuarial value of assets (a)	Actuarial accrued liability (b)	Unfunded actuarial accrued liability (c) (b)-(a)	(Unfunded) funded ratio (d) (a)/(b)	Covered payroll (e)	UAAL as a percentage of covered payroll (c)/(e)
July 1, 2015	$ —	2,266,407	2,266,407	—%	$ 465,032	487.4%
July 1, 2014	—	2,315,626	2,315,626	—	442,214	523.6
July 1, 2013	—	1,864,348	1,864,348	—	437,729	425.9

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
(A Component Unit of the Massachusetts Department of Transportation)

Supplementary Information

Metropolitan Boston Transit Parking Corporation
Schedule of Debt Service Coverage

June 30, 2016

Metropolitan Transit Parking Corporation – Schedule of Debt Service Coverage

	Number of spaces at facility (Unaudited)	2016 Gross revenues by facility	Revenue amount from facility to debt service	2016 Net revenue of facility after debt service	2016 Debt Service Percentage of gross revenue
Alewife (Garage)	2,733	$ 5,810,976	2,080,501	3,730,475	35.80%
Route 128 (Garage)	2,589	5,233,489	1,690,852	3,542,636	32.31
Quincy Adams (Garage)	2,538	4,251,305	1,519,889	2,731,417	35.75
Wonderland (Garage) & Lots	1,999	2,786,873	997,472	1,789,402	35.79
Hingham Boat	1,841	859,234	308,057	551,177	35.85
Braintree (Garage)	1,322	2,780,482	999,824	1,780,658	35.96
Wellington	1,316	1,877,266	670,889	1,206,377	35.74
Kingston	1,039	307,370	110,350	197,020	35.90
Greenbush	1,000	189,576	68,111	121,465	35.93
Lynn (Garage)	965	380,683	119,930	260,753	31.50
Riverside	925	1,205,251	428,937	776,313	35.59
Quincy Center (Garage)	872	—	—	-	—
North Quincy Hancock	852	803,956	286,053	517,903	35.58
Newburyport	814	183,293	66,168	117,125	36.10
Oak Grove	788	1,279,535	457,319	822,216	35.74
Norwood Center	781	417,531	149,732	267,799	35.86
Middleboro/Lakeville	769	412,093	148,100	263,993	35.94
Canton Junction	764	561,266	201,749	359,516	35.95
Forge Park	716	419,709	151,082	268,627	36.00
Salem (Garage)	700	689,984	247,265	442,719	35.84
Ashland	678	370,519	132,838	237,681	35.85
South Weymouth	620	249,368	89,401	159,966	35.85
Quincy Boat	600	—	—	-	—
South Attleboro	567	492,047	177,127	314,920	36.00
Wollaston	550	727,231	261,374	465,857	35.94
Woodland (Garage)	548	845,753	283,907	561,846	33.57
Campello	535	144,273	51,896	92,377	35.97
Norfolk	532	357,710	128,525	229,185	35.93
Bridgewater	504	237,809	85,435	152,374	35.93
Beverly Depot (Garage)	500	382,426	136,850	245,576	35.78
Dedham	497	184,827	66,179	118,648	35.81
Nantasket	495	93,343	33,469	59,874	35.86
Hanson	482	207,439	74,465	132,973	35.90
Westboro	448	361,134	129,611	231,523	35.89
Orient Heights	434	333,988	118,488	215,500	35.48

(Continued)

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
(A Component Unit of the Massachusetts Department of Transportation)

Supplementary Information

Metropolitan Boston Transit Parking Corporation
Schedule of Debt Service Coverage

June 30, 2016

	Number of spaces at facility (Unaudited)	2016 Gross revenues by facility	Revenue amount from facility to debt service	2016 Net revenue of facility after debt service	2016 Debt Service Percentage of gross revenue
Beachmont	430	305,201	108,268	196,933	35.47
Cohasset	410	159,364	57,126	102,238	35.85
Abington	405	247,190	88,588	158,602	35.84
Halifax	402	170,667	61,305	109,361	35.92
Norwood Depot	393	96,529	34,626	61,903	35.87
Grafton	373	239,750	86,107	153,643	35.92
Holbrook/Randolph	369	196,399	70,561	125,839	35.93
Southborough	364	310,606	111,666	198,941	35.95
Hersey	360	219,735	78,770	140,966	35.85
Readville	354	103,765	37,200	66,565	35.85
North Quincy Newport	354	346,041	124,073	221,967	35.85
Lechmere	347	480,262	170,404	309,858	35.48
Montello	347	114,248	40,944	73,304	35.84
Walpole	343	178,898	64,206	114,692	35.89
East Weymouth	335	248,162	88,968	159,194	35.85
Stoughton	333	235,216	84,374	150,842	35.87
Bradford	303	50,861	18,326	32,535	36.03
Lots with 150-300 spaces	4,442	3,358,399	1,196,608	2,161,791	35.63
Lots with less than 150 spaces	1,795	1,059,685	379,345	680,340	35.80
Totals		$ 43,558,718	15,373,310	28,185,406	35.29%

See accompanying independent auditors' report