MASSACHUSETTS PORT AUTHORITY

Financial Statements, Required Supplementary Information, and Supplementary Schedules

Years Ended June 30, 2019 and 2018

(With Report of Independent Auditors)

MASSACHUSETTS PORT AUTHORITY

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Report of Independent Auditors

To the Members of the Massachusetts Port Authority

Report on the Financial Statements

We have audited the accompanying financial statements of the Massachusetts Port Authority (the Authority), as of and for the years ended June 30, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in conformity 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 of material misstatement, whether due to fraud or error.

Auditor's 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. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the 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 financial position of the Massachusetts Port Authority as of June 30, 2019 and 2018, and the changes in its financial position and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

Required Supplementary Information

U.S. generally accepted accounting principles require that management's discussion and analysis, the schedule of pension contributions, schedule of changes in the net pension liability and related ratios, schedule of OPEB contributions, schedule of changes in the net OPEB liability and related ratios and schedule of investment returns, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board which 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, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Authority's basic financial statements. The supplementary schedules, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements. The supplementary schedules are the responsibility of management and were 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 audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States. In our opinion, the information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Ernst & Young LLP

September 27, 2019

MANAGEMENT'S DISCUSSION AND ANALYSIS

The following Management's Discussion and Analysis (MD&A) section of the activities and financial performance of the Massachusetts Port Authority (Massport or the Authority) provides an introduction to the financial statements of the Authority for the fiscal years ended June 30, 2019 and 2018. This discussion was prepared by management, and it should be read in conjunction with the audited financial statements and notes that follow this section.

Overview of the Financial Statements

The Authority's financial statements consist of: (1) the Statements of Net Position; (2) the Statements of Revenues, Expenses and Changes in Net Position; and (3) the Statements of Cash Flows. These financial statements have been prepared in accordance with U.S. generally accepted accounting principles as promulgated by the Governmental Accounting Standards Board (GASB).

The comparative Statements of Net Position depict the Authority's financial position as of a point in time, specifically June 30, 2019, 2018 and 2017, and include all assets, deferred outflows of resources, liabilities and deferred inflows of resources of the Authority. Net position represents the residual interest in the Authority's assets and deferred outflows of resources after liabilities and deferred inflows of resources are deducted. The Authority's net position is divided into three components: 1) net investment in capital assets, 2) restricted, and 3) unrestricted. Please see Note 1 in the financial statements attached hereto for a discussion on the Authority's net position.

The Statements of Revenues, Expenses and Changes in Net Position report operating revenues, operating expenses, non-operating revenue and expenses, and other changes in net position. Revenues and expenses are categorized as either operating or non-operating based upon management's policies as established in accordance with definitions set forth by the GASB. Certain sources of the Authority's revenues, including Passenger Facility Charges (PFCs), Customer Facility Charges (CFCs), investment income and capital grants are reported as other than operating revenue and their uses are restricted and generally are not available for operating purposes.

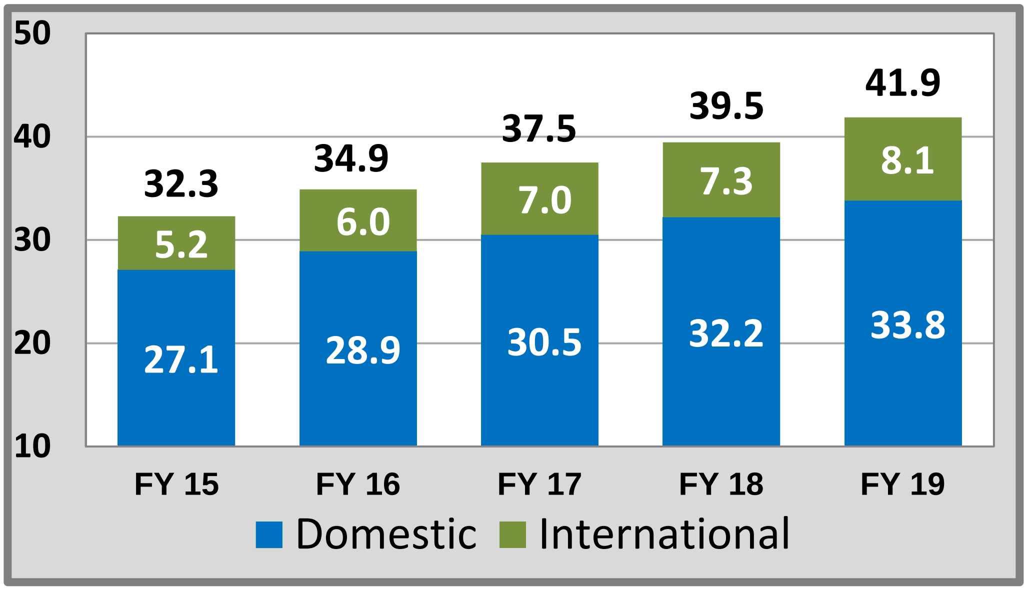
The Statements of Cash Flows present information showing how the Authority's cash and cash equivalents changed during the fiscal year. The Statements of Cash Flows classify cash receipts and cash payments resulting from operating activities, capital and related financing activities, and investing activities.

BUSINESS ACTIVITY HIGHLIGHTS FOR FISCAL YEAR 2019

Logan International Airport: 41.9 million passengers served, another new record

- **Passengers** ↑ **6.0%** versus prior year.
- Domestic passengers grew by 1.6 million or 4.9%. JetBlue Airways domestic passenger volume increased by 0.7 million passengers or 6.7%, Delta Air Lines added 0.6 million or 13.7% more domestic passengers, and two new entrants to the Boston market, Hawaiian Airlines and Frontier Airlines, combined to contribute 0.2 million additional domestic passengers. Domestic passenger volume for all other carriers was up by 0.1 million.
- International passengers grew by 0.8 million or 10.6%. JetBlue increased by 0.2 million due to new and additional service to the Caribbean and Mexico City. Norwegian Airlines added 0.1 million by expanding service to existing destinations (Rome and Madrid). Delta expanded service to Lisbon and initiated service to Edinburgh, which accounted for an increase of 0.1 million passengers. New carriers serving Boston including LATAM (Sao Paulo), Korean Air Lines (Seoul), KLM (Amsterdam) and Royal Air Maroc (Casablanca) contributed 0.1 million of international passenger growth. Year-over-year growth from existing airlines/markets, the full year impact of services that began in fiscal year 2018, and passenger declines due to discontinuation of service from Aeromexico, Avianca and WOW netted out to the remaining 0.3 million increase.
- Total flight operations increased by 3.5% in fiscal year 2019 versus the prior year. This growth was less than the 6.0% total passengers increase due to (i) airlines using larger aircraft so they can accommodate more passengers per operation, and (ii) an increase in load factors.
- Logan Express High Occupancy Vehicle (HOV) bus ridership between Logan Airport and Braintree, Framingham, Peabody and Woburn grew by 8.0%, higher than Logan passenger growth as more customers opted for this mode of transportation.

LOGAN INTERNATIONAL AIRPORT
Passengers Served (Millions)



Worcester Regional Airport: Significant passenger growth and new services reinforced Airport Revitalization

- **Passengers served** ↑ **34%** versus prior year

- Since JetBlue began service at Worcester Airport in November 2013, 719,000 passengers have flown into or out of the airport. During fiscal year 2019, 181,000 passengers were served at Worcester Airport.

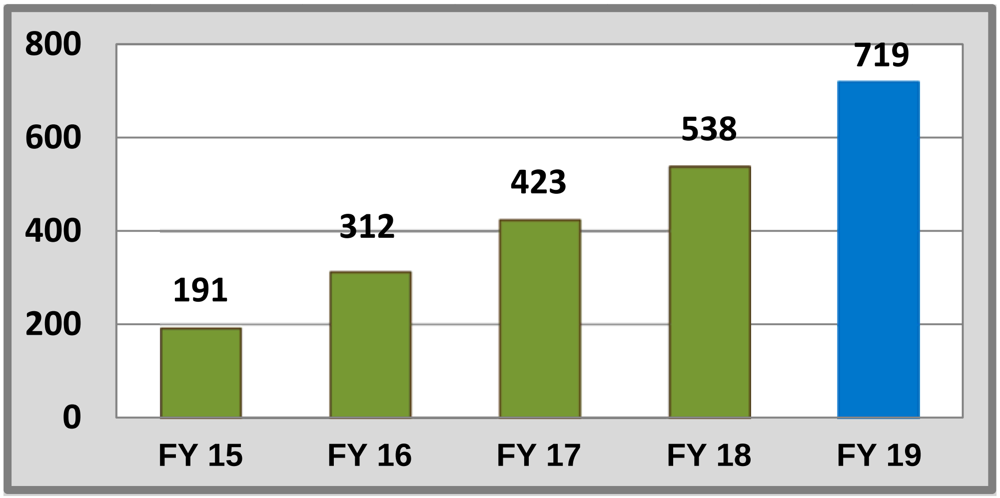
- American Airlines initiated service between Worcester and its Philadelphia hub beginning in October 2018.

- In August 2018, Delta Air Lines announced plans to introduce service between Worcester and its Detroit hub beginning in August 2019. Ticket sales began in January of 2019.

- Load factors on JetBlue flights to Orlando and Ft. Lauderdale remained above 80%.

WORCESTER REGIONAL AIRPORT

Cumulative Commercial Passengers (thousands)



[Conley Container Terminal](#): 307,331 TEUs (Twenty-foot Equivalent Units) processed, another new record

- **TEU volume** ↑ **8.3%** versus prior year.
- Continuing strength of the New England economy, less congestion for truckers to access the terminal versus other east coast ports, a highly productive workforce, and an acute focus on customer service all contributed to the volume increase. Average turn time per truck decreased to 34 minutes. The average container lifts per hour per crane of 33 maintained Conley's position as a highly efficient port.
- The Port of Boston generated $8.2 billion in economic output, up $3.8 billion or 78% since 2012. Total jobs at the Port increased by 32% from 50,000 to 66,000 and direct jobs grew by 27% from 7,000 to 9,000. State and local taxes paid increased to $186 million, up 37%. Record activity at Massport's businesses contributed significantly to these improvements in economic output for the Port.

- The Maritime Strategic Plan calls for an $850 million investment to revitalize and modernize Conley Terminal. Components of the plan include the dredging of Boston Harbor, a new Berth 10 and the addition of three new cranes, improvements to the existing terminal, and construction of a dedicated freight corridor. The dedicated freight corridor has been completed, and the Authority made significant progress on the other investments during FY19.

- The Boston Harbor Dredging project advanced with the completion of Phase I of the Maintenance Dredging component. The Improvement Dredging component commenced in July, 2018. To date, approximately seven million cubic yards have been dredged, which is 60% of the total twelve million cubic yards required under the project plan. The Army Corps of Engineers (ACOE) has also bid Phase II of the Maintenance Dredging project, and is in the design phase of the Rock Removal contract. The Harbor Dredging Project is anticipated to be completed in FY22. When finished, the Broad Sound North Channel depth will be increased to 51 feet, and the Main Ship Channel and Reserved Channel Turning Basin will both be deepened to 47 feet.

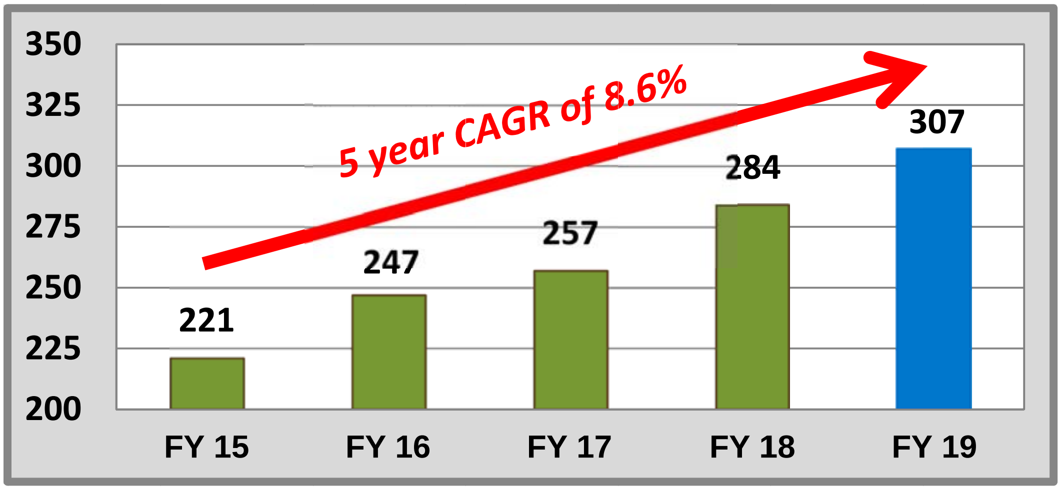
- The Conley Terminal modernization initiative, funded in part with a $42 million FASTLANE grant from the federal government, was also advanced during FY19. At Berth 12, twenty new fenders capable of accommodating the larger cargo vessels were installed to replace older obsolete ones, and the structural rehab of Berth 11 is close to completion. A new container yard and new reefer racks were installed and put into operation and the new Wi-Fi broad band project and new terminal yard lighting is close to completion. The deepening of Berth 11 to accommodate the larger ships has also started, and five existing Rubber Tired Gantry (RTG) cranes were upgraded. Seven new tractors were procured and delivered to the terminal in November 2018. All of the FASTLANE projects are either underway or have been completed.

- Massport has also constructed an additional container yard at the former Coastal Oil site, and procured two new RTGs in April 2019 to support the terminal operation. The Authority also initiated the procurement process for two more RTGs, which will bring the total number of RTGs at Conley Terminal to sixteen.

- Construction of the new deep-water Berth 10 began in June, 2018. Massport also initiated the procurement process for three new ship-to-shore cranes capable of servicing the next generation of container ships. Berth 10 and the three new cranes are scheduled to be completed and commissioned in early 2021. The $215 million cost of Berth 10 and the three new cranes is being funded equally by the Authority and the Commonwealth.

CONLEY CONTAINER TERMINAL

TEUs Processed (thousands)

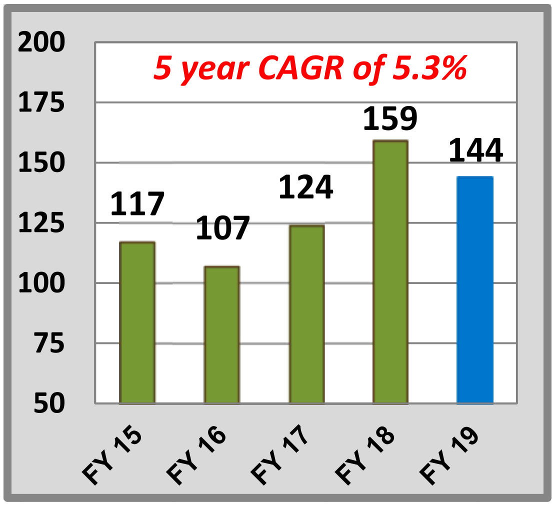


Flynn Cruiseport: 395,962 cruise passengers and 144 ship calls handled

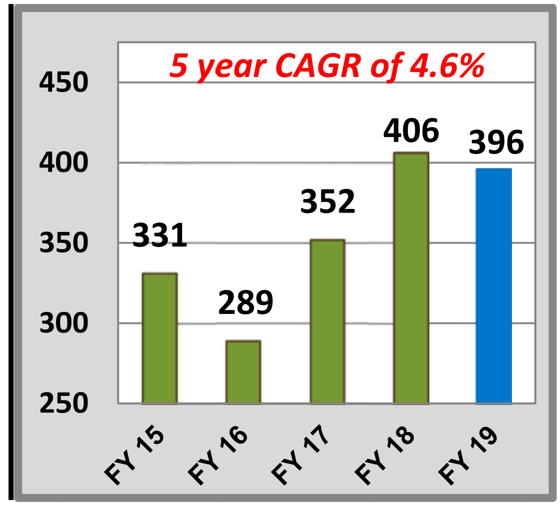
- **Cruise passengers** ↓ **2.6%** versus prior year.
- Flynn Cruiseport served nearly 390,000 passengers in fiscal year 2019, the second largest passenger level amount during the last five years.
- Holland America's MS Zaandam made its maiden voyage to the Port in April 2019, and Holland America has increased the number of ships that will homeport out of Boston in fiscal year 2020.
- Passenger volumes were adversely impacted by inclement weather along the Atlantic coast which prevented some ships from visiting Boston, and also by Holland America's redeployment of the MS Veendam to homeport out of Venice, Italy instead of Boston.

FLYNN CRUISEPORT BOSTON

SHIP CALLS



PASSENGERS (thousands)



Real Estate: Three key development parcels advanced in South Boston

- In November 2018, Massport selected Boston Global Investors (BGI) to develop a 1.1 acre property on a Massport parcel of land near the World Trade Center in South Boston. BGI plans to construct a 600,000 square foot office tower. Similar to the proposal for the Omni Hotel, for which ground was broken in FY18, the BGI proposal includes more than 25 percent minority-owned and women-owned businesses throughout their plans, from equity investment to architecture and construction. Their proposal also includes a significant component for Public Realm development.

- In January 2019, ground was broken on a new 50,000 square foot seafood processing facility at the Massport Marine Terminal in South Boston. The owner, Boston Sword and Tuna, plans to expand its business and create 150 new maritime industrial jobs at this new location.

- In June 2019, the Authority issued a Request for Proposal (RFP) to develop Parcel H in South Boston. The RFP calls for a mixed-use commercial development to be constructed on this property, and the evaluation criteria are similar to the Omni Hotel and BGI developments as the Authority continues to use this model to encourage more diversity.

FINANCIAL HIGHLIGHTS FOR FISCAL YEAR 2019

Operating Revenue: Increased by $69 million to $906 million

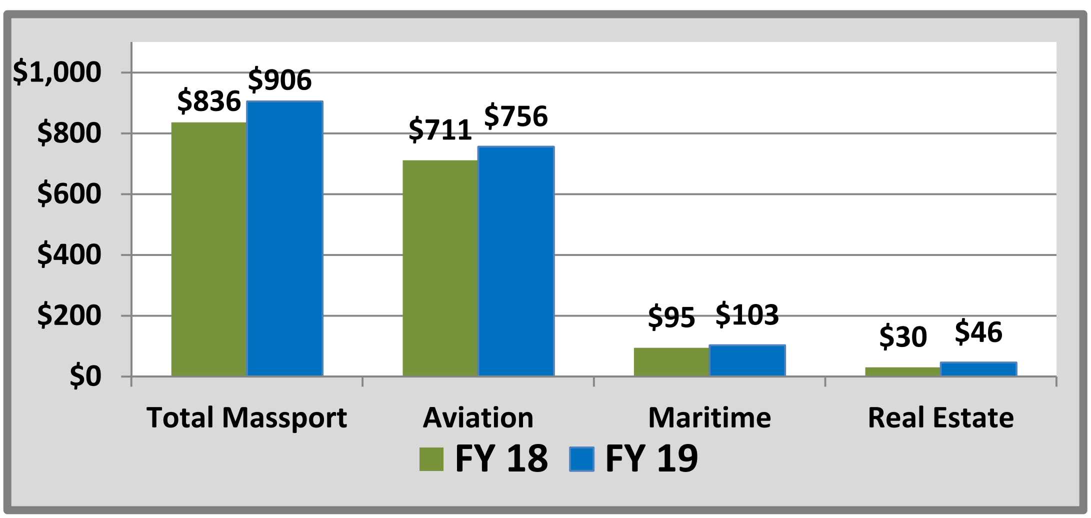
- **Total Operating Revenue** ↑ **8.3%** versus prior year.

- Aviation revenue up $45 million or 6.3%: The 6.0% increase in Logan Airport passenger volume resulted in the recovery of more Logan Airport operating and capital costs from airlines. Other passenger volume related revenues, such as concessions, were also higher. Terminal rent revenue increased due to the refinancing of debt associated with Logan Terminal A. Revenue growth is being used to fund Massport's strategic initiatives and its FY19 - FY23 capital program of $2.6 billion, which is the largest in the Authority's history.

- Maritime revenue up $8 million or 8.9%: Higher Conley Terminal container revenue due to an 8.3% increase in container volume (TEUs) and growth in Flynn Cruiseport revenues due to higher fees that more than offset a 2.6% decline in passengers resulted in an increase in Maritime revenue in FY19 versus the prior year. Revenue generated by Maritime is being used to fund the $850 million Maritime Strategic Plan discussed above.

- Real Estate revenue up $16 million or 51.8%: The sale of a building on Massport-owned property produced transaction rent revenue, ground rents increased due to annual lease escalations, and parking revenue was higher due to a full year of operation for the South Boston Waterfront Transportation Center. Revenue will be used to support the $850 million Maritime Strategic Plan.

OPERATING REVENUES
($ Millions)



Expenses: Increased by $56 million to $813 million

- Higher business activity caused expenses to increase by $9.9 million for items including stevedoring, shuttle bus operation, airport terminal cleaning, and other supplies, materials repairs and services to enable Massport facilities to accommodate business growth in a safe and efficient manner. This increase includes $3.0 million for the new Logan commissary, which is part of an enhanced security plan at the airport.

- Wage and Benefits expense increased by $4.9 million or 3.1% due primarily to annual merit and collectively bargained wage increases.

- State Police expenses increased by $3.4 million, primarily due to a new class of 30 troopers required to reinforce security at Logan Airport.

- Snow-related expenses were lower by $2.6 million due to 26 fewer inches of snow in fiscal year 2019 versus fiscal year 2018.

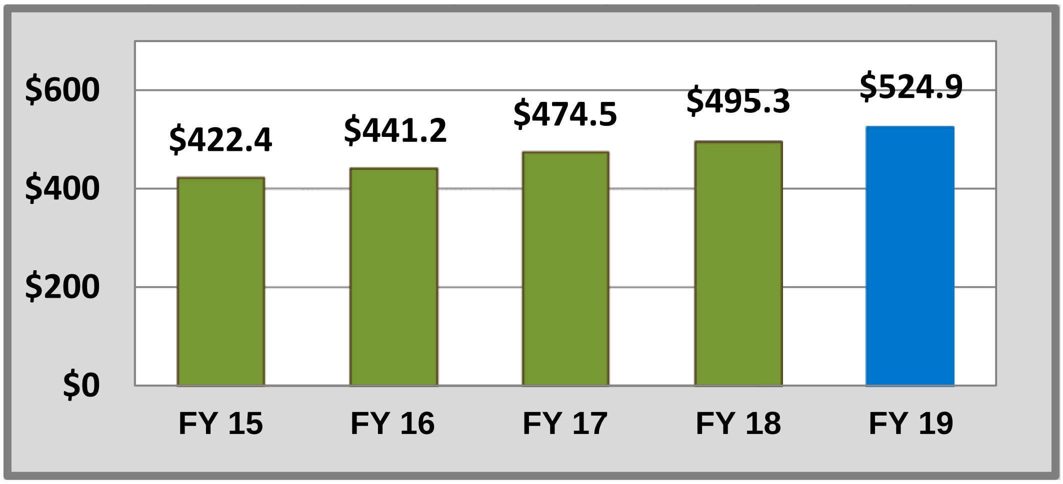
- Miscellaneous expenses were up $1.0 million as higher professional fees for environmental and engineering consultants, costs related to Logan Airport hosting the American Association of Airport Executives conference, and advertising for new initiatives were partially offset by lower utility costs driven by a decrease in the cost per kilowatt.

- Pension and Other Post-Employment Benefits (OPEB) expense increased by $11.7 million or 40.3% due primarily to unfavorable net investment returns for the Pension fund for the calendar year ending December 31, 2018.

- PILOT (Payment in Lieu-of-Taxes) expense was higher by $0.9 million or 4.4% due to the annual increase attributed to growth in the Consumer Price Index and community mitigation payments.

- Depreciation and Amortization expense increased by $26.2 million or 10% due to new investment in the Authority's assets and the refunding of the Terminal A Special Facility Bonds during fiscal year 2019, which added $14.4 million of new depreciation expense.

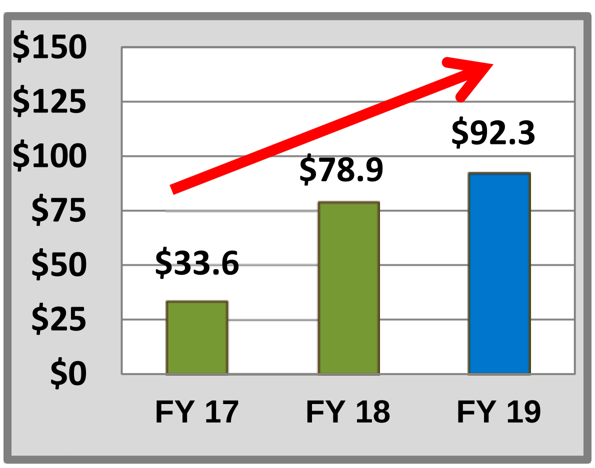
OPERATING EXPENSES excluding Depreciation
($ Millions)



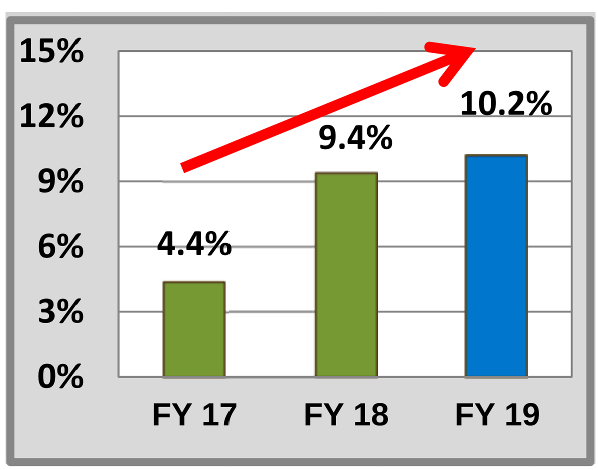
Operating Income: Increased by $13 million to $92 million

- Management's five-year plan projected margin expansion in order to fund Massport's $2.6 billion capital program, the largest in the Authority's history. The $13.4 million increase in operating income supports this plan as the Authority was able to grow revenue faster than expenses during fiscal year 2019.
- The FY19 operating income margin of 10.2% increased by 0.8% over the FY18 margin.

OPERATING INCOME
($ Millions)



OPERATING MARGIN



Net Position: Increased by 9.8% to $2.4 billion

- Net position is a key indicator of the financial health of the Authority and is comprised primarily of capital assets owned by the Authority.
- The FY19 increase in net position of $211.9 million was due to $92.3 million of operating income, $91.4 million of non-operating income, and $28.2 million of capital grant revenue.
- Expansion of the Authority's net position is critical to fund the $2.6 billion capital program, which includes Massport's strategic initiatives such as adding parking capacity and reducing roadway congestion at Logan Airport, the expansion of Terminal E to accommodate more international flights, and the dredging of Boston Harbor and modernization of Conley Terminal to support the industry trend toward larger 10,000+ TEU container ships.

Condensed Statement of Revenues, Expenses and Changes in Net Position
($ millions)

	FY 2019	FY 2018	$ Change	% Change
Operating revenues	$ 905.5	$ 836.4	$ 69.1	8.3%
Operating expenses including depreciation and amortization	813.2	757.5	55.7	7.4%
Operating income	**92.3**	**78.9**	**13.4**	**17.0%**
Total non-operating revenues (expenses), net	91.4	51.9	39.5	76.1%
Capital grant revenues	28.2	25.4	2.8	11.0%
Increase (decrease) in net position	**211.9**	**156.2**	55.7	35.7%
Net position, beginning of year	2,164.3	2,008.1	156.2	7.8%
Net position, end of year	**$ 2,376.2**	**$ 2,164.3**	**$ 211.9**	**9.8%**

	FY 2018	FY 2017 *(Restated)*	$ Change	% Change
Operating revenues	$ 836.4	$ 760.9	$ 75.5	9.9%
Operating expenses including depreciation and amortization	757.5	727.3	30.2	4.2%
Operating income	**78.9**	**33.6**	**45.3**	**134.8%**
Total non-operating revenues (expenses), net	51.9	43.1	8.8	20.4%
Capital grant revenues	25.4	12.6	12.8	101.6%
Increase (decrease) in net position	**156.2**	**89.3**	66.9	74.9%
Net position, beginning of year	2,008.1	1,918.8	89.3	4.7%
Net position, end of year	**$ 2,164.3**	**$ 2,008.1**	**$ 156.2**	**7.8%**

Note: Fiscal year 2017 results were restated to conform to GASB No. 75 standards for reporting OPEB costs.

Detailed descriptions of operating revenues and expenses, and non-operating revenues and expenses are described in the following sections.

OPERATING REVENUE

The Authority's operating revenues for fiscal year 2019 were $905.5 million, an increase of $69.1 million or 8.3% over fiscal year 2018. This growth was primarily the result of additional concession revenue driven by the 6.0% increase in passengers at Logan Airport, higher fees at Conley Terminal due to the 8.3% increase in TEUs, a real estate transaction fee related to the sale of a property in South Boston, and the recovery of operating and capital investment expenses from airlines in the form of higher Landing Fees and Terminal Rent. This revenue increase is being used to fund the Authority's $2.6 billion capital program.

Operating Revenues

($ millions)

	FY 2019	FY 2018	$ Change	% Change
Aviation Rentals	$ 267.1	$ 240.8	$ 26.3	10.9%
Aviation Parking	182.1	180.8	1.3	0.7%
Aviation Fees	153.2	153.2	0.0	0.0%
Aviation Concessions	130.8	114.5	16.3	14.2%
Shuttle Bus	21.2	20.3	0.9	4.4%
Aviation Operating Grants and Other	2.0	1.9	0.1	5.3%
Total Aviation Revenues	**$ 756.4**	**$ 711.5**	**$ 44.9**	**6.3%**
Maritime Fees, Rentals and Other	102.8	94.4	8.4	8.9%
Real Estate Fees, Rentals and Other	46.3	30.5	15.8	51.8%
Total	**$ 905.5**	**$ 836.4**	**$ 69.1**	**8.3%**

	FY 2018	FY 2017	$ Change	% Change
Aviation Rentals	$ 240.8	$ 217.9	$ 22.9	10.5%
Aviation Parking	180.8	169.4	11.4	6.7%
Aviation Fees	153.2	145.4	7.8	5.4%
Aviation Concessions	114.5	98.9	15.6	15.8%
Shuttle Bus	20.3	19.3	1.0	5.2%
Aviation Operating Grants and Other	1.9	2.9	(1.0)	-34.5%
Total Aviation Revenues	**$ 711.5**	**$ 653.8**	**$ 57.7**	**8.8%**
Maritime Fees, Rentals and Other	94.4	82.1	12.3	15.0%
Real Estate Fees, Rentals and Other	30.5	25.0	5.5	22.0%
Total	**$ 836.4**	**$ 760.9**	**$ 75.5**	**9.9%**

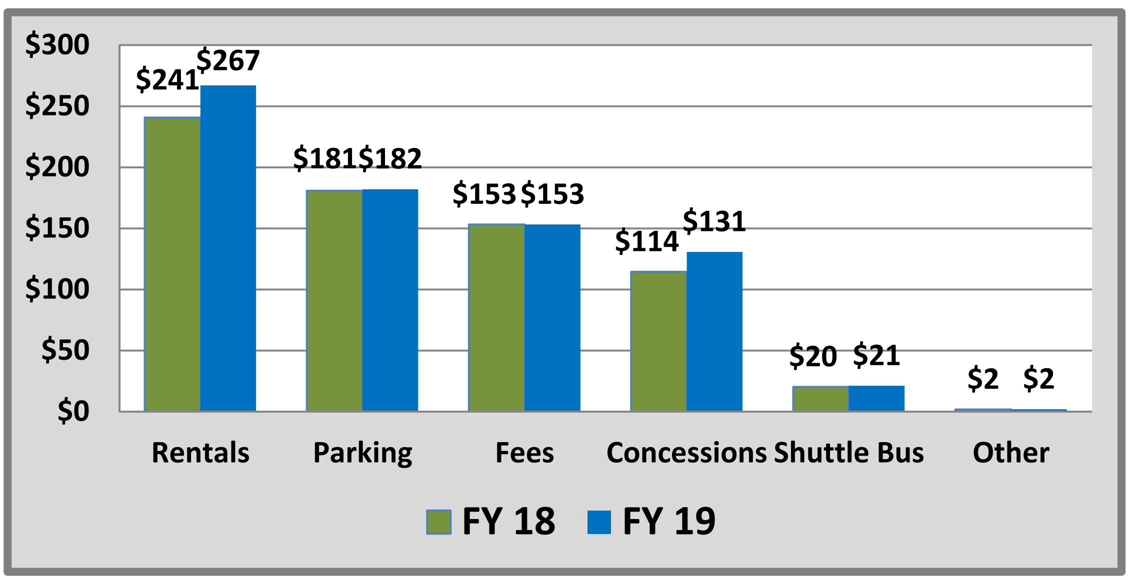
AVIATION REVENUES

The Authority's airports generated $756.4 million of Aviation revenues during FY19, which was $44.9 million or 6.3% above the prior year.

Aviation Revenues
($ millions)

	FY2019	FY 2018
Logan	$ 738.3	$ 695.4
Hanscom	14.9	14.3
Worcester	3.2	1.8
Total	$ 756.4	$ 711.5

Aviation Revenues by Category
($ Millions)



Fiscal Year 2019 Compared to 2018

The Authority's Aviation revenues are derived from its three airport facilities: Logan Airport, Hanscom Field and Worcester Regional Airport.

Logan Airport Revenues

Logan Airport generated $738.3 million in revenues in fiscal year 2019, a $42.9 million, or 6.2% increase over last year due to another record-breaking year of 41.9 million passengers that favorably impacted concessions and other passenger volume driven revenues. The other major contributor to the increase was the recovery of terminal operating and capital costs from the airlines using the airport.

Logan Airport Revenues

($ millions)

	FY2019	FY 2018
Logan Rentals	$ 258.6	$ 233.3
Logan Parking	181.5	180.3
Logan Fees	145.3	146.0
Logan Concessions	129.8	113.6
Shuttle Bus	21.2	20.3
Logan Operating Grants and Other	1.8	1.9
Total	$ 738.3	$ 695.4

Logan rental revenues are earned through terminal building, non-terminal building and ground lease agreements. Revenue from Logan Airport rentals was $258.6 million, a $25.3 million or 10.8% increase over prior year. Terminal rent accounts for 78.8% or $203.9 million of this revenue, and increased by $23.4 million. The remaining 21.2% is comprised of non-terminal rent (11.3%) and ground rent (9.9%).

The increase in terminal rent was driven primarily by the recovery of terminal operating and capital costs from the airlines in the form of higher terminal rental rates, and also the refinancing of debt related to Terminal A, which resulted in an increase in terminal rent received from tenants of that terminal. Some of the capital projects responsible for the cost and associated recovery increase include the Public Wi-Fi Replacement, Central Heating Plant Upgrades, Tunnel Lighting Fixture Improvements, a portion of the Terminal B Optimization Project, and other facility alterations at Logan Airport.

Logan parking revenues are generated from the Authority's on-airport and off-airport parking facilities. In fiscal year 2019, Logan parking revenue was $181.5 million, up $1.2 million or 0.7% versus prior year due primarily to the increase in passengers at Logan Airport. Commercial parking on-site at Logan Airport accounted for $0.2 million of the increase and grew by 0.1%, while employee parking also increased by $0.2 million. Parking revenue from the three off-airport Logan Express parking locations was $6.9 million, up $0.7 million or 11.3% driven by an 8% increase in Logan Express passengers and an increase in the average number of days parked.

Logan fee revenues consist of revenues earned from aircraft landing fees, utility reimbursements, and aircraft parking, fueling and other airport fees. During fiscal year 2019, Logan Airport aviation fees were $145.3 million, a $0.7 million or 0.5% decrease versus prior year. Utility reimbursements were lower in fiscal year 2019 by $2.1 million, primarily from lower electricity costs due to chiller upgrades at Logan's central heating plant. Logan Airport aircraft landing fees, which account for 82.5% of Logan aviation fees, were higher by $0.6 million or 0.5% versus fiscal year 2018. Landing fees are collected from scheduled and non-scheduled airlines based on the landed weight of aircraft serving Logan Airport. The landing fee rate is determined annually based on full cost recovery of landing field operating and capital costs required to operate and maintain the airfield for the Authority's airline customers.

Logan Airport Aviation Fees
($ millions)

	FY2019	FY 2018
Landing Fees	$ 119.8	$ 119.2
Utilities	13.6	15.7
Other	11.8	11.1
Total	$ 145.3	$ 146.0

Logan concessions revenues are earned from airport terminal retail operations, on-airport car rental transactions, and the activities of ground transportation and other service providers including taxis, bus, limousine, Ride Apps (Transportation Network Companies), aircraft ground handling, and in-flight catering. In fiscal year 2019, Logan Airport earned $129.8 million from concessions versus $113.6 million in fiscal year 2018, an increase of $16.2 million or 14.3%.

Revenues from in-terminal concessions totaled $56.0 million, an increase of $7.5 million or 15.5% compared to the prior year. This increase was mainly due to a $6.7 million increase in food and beverage due to the 6.0% increase in passengers coupled with the favorable revenue impact of the new concessions management agreement with Marketplace Logan LLC that went into effect in fiscal year 2018. This agreement continues to provide new restaurant and retail offerings for Logan Airport customers each year. The increase in passengers and the Marketplace agreement also contributed to an increase in news and gifts revenue by $4.3 million. Duty Free revenues increased by $1.5 million due to more international passengers. Partially offsetting these increases were declines in advertising and foreign exchange revenues in fiscal year 2019.

Logan Airport earned $35.3 million from rental car companies during fiscal year 2019, an increase of $1.3 million or 3.8%. Rental car transactions increased by 1.6% and revenue per transaction grew by 1.1%. Ground transportation and other fees of $38.5 million increased by $7.4 million or 23.8%. Ground transportation fees collected from Taxis, Limos, and Ride Apps totaled $17.3 million, an increase of $2.1 million or 13.9% driven by a 32% increase in Ride App pick-ups offset by lower taxi and limo passenger trips. This increase in revenue is being used to fund modifications to Logan Airport's roadways and Central Garage to alleviate the increase in roadway and curb congestion. Other fees include $3.1 million of revenue paid to the Authority related to the establishment of a new commissary at Logan Airport which is offset by increased operating expenses, and $18.1 million of concession revenues from commercial services, communication services and ground servicing, which increased by $2.2 million or 14.0% due to additional aircraft operations.

Logan Airport Concession Fees

($ millions)

	FY2019	FY 2018
In-Terminal	$ 56.0	$ 48.5
Rental Car	35.3	34.0
Ground Transportation & Other	38.5	31.1
Total	$ 129.8	$ 113.6

Shuttle bus and other revenues are primarily the result of an on-airport shuttle that links the terminal buildings, rental car center, and MBTA station, as well as the bus operations from four off-airport Logan Express sites in the Boston metropolitan region and Boston's Back Bay area. The Authority earned $21.2 million of revenue in fiscal year 2019 for the Logan Airport shuttle bus operations, an increase of $0.9 million over last year. Revenue from the on-airport shuttle bus increased by $0.3 million or 3.8% due to the recovery of operating expenses required to maintain the Rental Car Facility. Logan Express ticket revenue from the four sites at Braintree, Framingham, Peabody and Woburn along with the Back Bay service increased by $0.6 million due to the 8.0% increase in Logan Express ridership.

During fiscal year 2019, Logan Airport received $1.8 million in other revenues from federal operating grants.

Logan Airport Shuttle Bus and Other Revenues

($ millions)

	FY2019	FY 2018
Shuttle Bus	$ 21.2	$ 20.3
Other	1.8	1.9
Total	$ 23.0	$ 22.2

Hanscom Field and Worcester Regional Airport Revenues

Hanscom Field revenues were $14.9 million in fiscal year 2019, up $0.6 million or 4.2% from the prior year. The increase was due to higher aircraft fuel flowage fees and aircraft parking revenues. Worcester Regional Airport had $3.2 million in operating revenues in fiscal year 2019, up $1.4 million due to higher fixed based operator ground lease revenue and higher parking and other revenues related to the 34% increase in passenger volume.

Hanscom and Worcester Revenues
($ millions)

	FY2019	FY 2018
Hanscom	$ 14.9	$ 14.3
Worcester	3.2	1.8
Total	$ 18.1	$ 16.1

Fiscal Year 2018 Compared to 2017

The Authority earned $711.5 million in revenues from its aviation operations in fiscal year 2018, up $57.5 million or 8.8% compared to prior year.

Revenue from Logan Airport rentals was $233.3 million, a $22.0 million or 10.4% increase over prior year. Terminal rent accounts for 77.4% of this revenue, and increased by $18.9 million. This was driven primarily by the recovery of terminal operating and capital costs from the airlines in the form of higher terminal rental rates.

Aviation parking revenues are primarily generated from the Authority's on-airport and off-airport parking facilities. Logan parking revenue was $180.3 million, up $11.4 million or 6.7% versus prior year due primarily to a rate increase at all Logan parking facilities. Parking revenue from the three off-airport Logan Express locations was $6.2 million, up $0.7 million or 12.7% due to a 6% increase in passenger use and a longer duration in the average number of days parked.

During fiscal year 2018, Logan Airport aviation fees were $146.0 million, a $7.1 million or 5.1% increase over prior year. Logan Airport aircraft landing fees, which account for 81.6% of Logan aviation fees, were higher by $6.0 million or 5.3% versus fiscal year 2017 and reflect an increase in operating and capital cost recovery.

Logan concessions revenues earned from airport terminal food, beverage and retail operations, on-airport car rental transactions, the activities of ground transportation and other service providers including taxis, bus, limousine, Ride Apps, aircraft ground handling, advertising and in-flight catering totaled $113.6 million in fiscal year 2018. This was $15.6 million or 15.9% higher than fiscal year 2017 due to the 5.4% increase in passengers along with a new FY18 concessions management agreement with Marketplace Logan LLC.

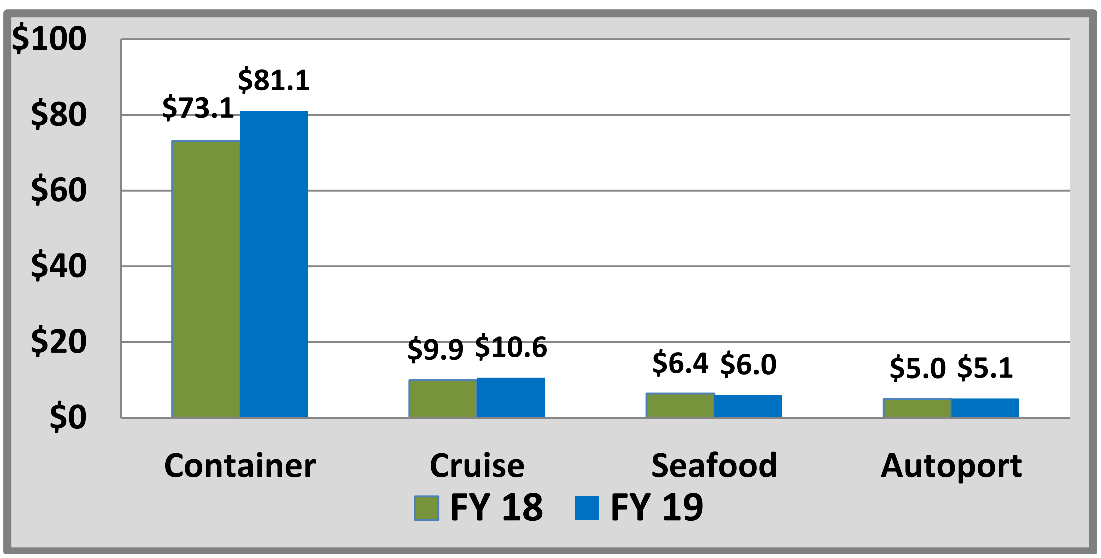
Logan Airport shuttle bus operations generated $20.3 million, a $1.0 million increase over prior year due to an increase in Logan Express ridership. Federal operating grant revenue was $1.0 million lower.

Hanscom Field revenues were up $1.4 million or 10.9% from prior year due to higher ground rent from a new Jet Aviation Hangar and FBO Terminal, and also from higher aircraft fuel flowage and landing fees at the airport. Worcester Regional Airport revenues were up by $0.2 million due primarily to higher fuel flowage fees.

MARITIME REVENUES

The Authority's maritime operations at the Port of Boston generated $102.8 million of revenue during FY19, which was $8.4 million or 8.9% above the prior year.

Maritime Revenues by Category
($ Millions)



Fiscal Year 2019 Compared to 2018

Maritime fees, rentals and other revenues are collected primarily from container shipping lines, cruise ship lines and other customers that use the Authority's Port facilities. The Authority's maritime business includes cargo container ship operations at Conley Terminal, cruise activity at the Flynn Cruiseport, rental facilities for seafood processors and commercial parking at the Boston Fish Pier in South Boston, and the Moran Terminal, which houses an automobile import/export facility and other port properties in Charlestown. The Authority collected $102.8 million in fees, rentals and other income from its maritime operations in fiscal year 2019.

Maritime Revenues

($ millions)

	FY2019	FY 2018
Containers	$ 81.1	$ 73.1
Cruise	10.6	9.9
Seafood	6.0	6.4
Autoport	5.1	5.0
Total	$ 102.8	$ 94.4

Container revenue during fiscal year 2019 was $81.1 million, which was $8.0 million or 10.9% higher than the prior year. Revenue is generated through the collection of fees from ocean shipping lines for the loading and unloading of containers at Conley Terminal and for related services through tariffs and contracts with the shipping lines and shippers using the Port. Conley Terminal processed a record 307,331 TEUs in FY19, an 8.3% increase over the prior year.

Cruise revenue from operations at the Flynn Cruiseport was $10.6 million in fiscal year 2019, up $0.7 million or 7.1% versus prior year. The Authority collects per passenger fees as well as dockage, water and equipment rental charges from home-port and port-of-call cruise ships that dock at the Cruiseport. Annual rate increases in these fees were partially offset by lower volumes. Fiscal year 2019 cruise passengers declined slightly by 2.6% versus the prior year and the number of ships visiting Boston was down 9.4%. Factors responsible for these decreases were ship cancellations due to inclement weather, and the repositioning of Holland America's MS Veendam to home-port in Venice for Mediterranean itineraries instead of home-porting in Boston.

Seafood revenues were $6.0 million in fiscal year 2019, a decline of $0.4 million or 6.3% from the prior year. Revenues are earned through space and ground rents from seafood processing and office tenants, commissions, utility charges, fees and parking lots at the Fish Pier. The $0.4 million decrease in fiscal year 2019 is due to the discontinuance of payments from a lease that was terminated in early fiscal year 2019.

Autoport revenue was $5.1 million in fiscal year 2019, which was up marginally from fiscal year 2018 due to an increase in utility reimbursement fees.

Fiscal Year 2018 Compared to 2017

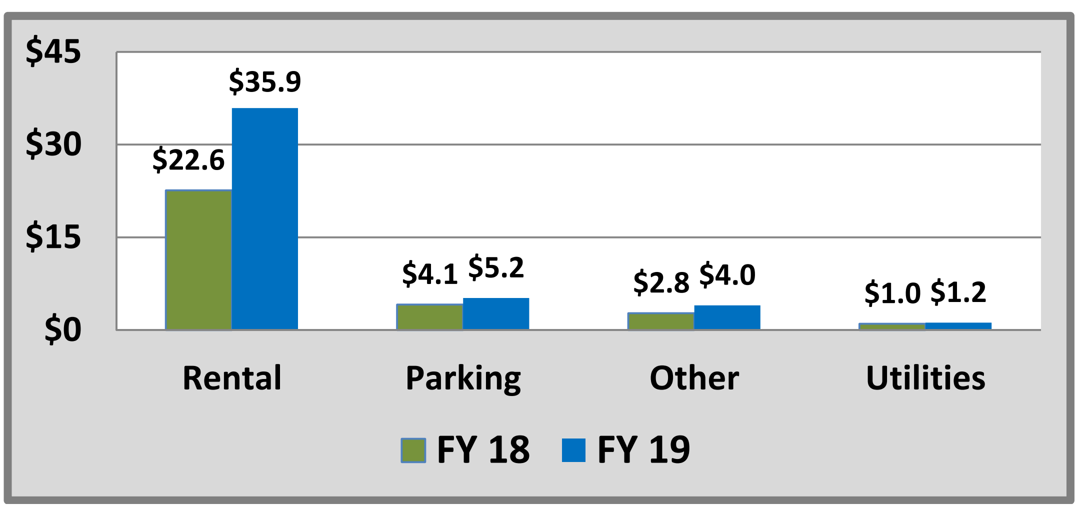
The Authority collected $94.4 million in fees, rentals and other income from its maritime operations in fiscal year 2018. This was $12.3 million or 15.0% higher than the prior year.

Container revenues were higher by $9.0 million or 14.0% as Conley Terminal set a new record by processing 283,720 TEUs, a 10.4% increase over prior year. Cruiseport revenues increased by $2.0 million or 25.3% due to 15.5% more passengers as the result of the positive impact of the new marketing incentive program and an increase in the length of the cruise season. Seafood revenues increased by $1.3 million due to higher rental income as more space was leased at the Fish Pier, contractual increases in existing leases, and higher parking revenue. Autoport revenue remained flat versus prior year.

REAL ESTATE REVENUES

The Authority's real estate division produced $46.3 million of revenue during FY19, which was $15.8 million or 51.8% above the prior year.

Real Estate Revenues by Category
($ Millions)



Fiscal Year 2019 Compared to 2018

The Authority's commercial real estate line of business earns revenues from ground leases, district service fees and parking on properties owned by the Authority in South Boston, East Boston and Charlestown. Revenues from the Authority's real estate activities totaled $46.3 million in fiscal year 2019, up $15.8 million or 51.8% versus prior year.

Real Estate Revenues
($ millions)

	FY2019	FY 2018
Real Estate	$ 46.3	$ 30.5

The increase in revenue was primarily due to a $13.3 million increase in ground rent income due to the sale of a building on a Massport parcel in South Boston that resulted in a transaction rent payment along with annual escalations to existing ground leases. Parking revenue increased by $1.1 million mainly as a result of the full year operation of the 1,550 space South Boston Waterfront Transportation Center. Other revenue increases included higher utility fee reimbursements, an increase in licensing fees for short-term use of Massport facilities, and other miscellaneous items.

Fiscal Year 2018 Compared to 2017

Revenues from the Authority's real estate activities in fiscal year 2018 totaled $30.5 million and reflected an increase of $5.5 million versus fiscal year 2017. The increase was primarily due to a $5.0 million increase in ground rent income due to a one-time closing payment on a parcel in South Boston from a developer, along with annual escalations to existing leases. Revenue also increased due to an increase in parking revenue and higher utility fee reimbursements.

OPERATING EXPENSES

The Authority's total operating expenses in fiscal year 2019 were $813.2 million, an increase of $55.7 million or 7.4% over the prior year. Excluding Pension and OPEB and Depreciation and Amortization, Massport's operating expenses were up 3.8%.

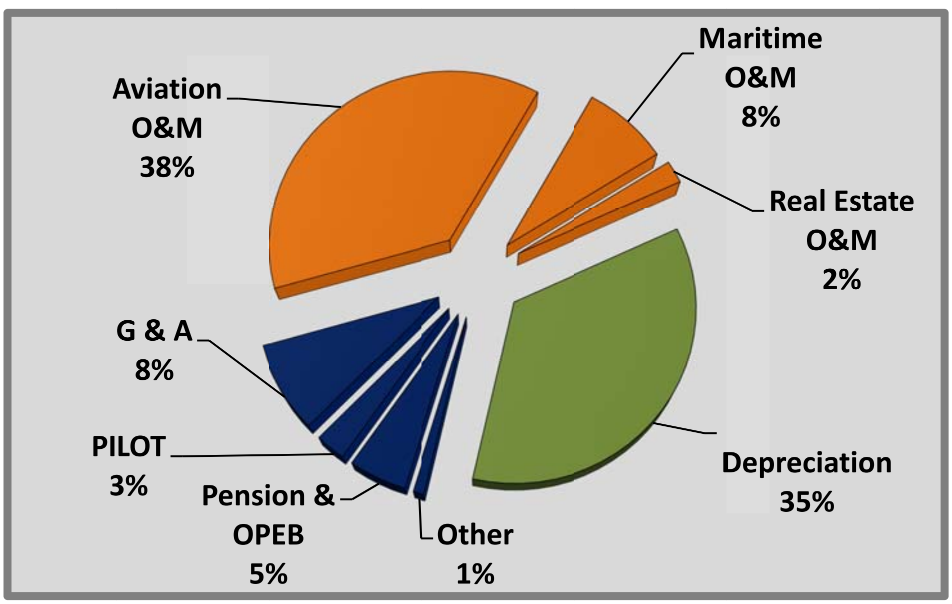
The total operating expense increase of 7.4% was due primarily to an $11.8 million or 3.1% increase in operations and maintenance expenses across all Massport facilities to support higher business activity. Pension and other post-employment benefits expense increased by a combined $11.7 million or 40.3% due to unfavorable net investment returns of -4.62% for the Pension fund. Depreciation and amortization expense increased by $26.2 million or 10.0% as the result of $729.2 million of assets being placed into service. Of these assets, $358.9 million was the result of the refunding of the Terminal A Special Facility Bonds during fiscal year 2019 and $370.3 million was for all other assets.

Operating Expenses
($ Millions)

	FY 2019	FY 2018	$ Change	% Change
Aviation Operations and Maintenance	$ 305.6	$ 296.2	$ 9.4	3.2%
Maritime Operations and Maintenance	64.4	64.0	0.4	0.6%
Real Estate Operations and Maintenance	16.9	14.9	2.0	13.4%
General and Administrative	67.3	62.5	4.8	7.7%
Payments in Lieu of Taxes	21.3	20.4	0.9	4.4%
Pension and Other Post-employment Benefits	40.7	29.0	11.7	40.3%
Other	8.6	8.4	0.2	2.4%
Depreciation and Amortization	288.3	262.1	26.2	10.0%
Total Operating Expenses	**$ 813.2**	**$ 757.5**	**$ 55.7**	**7.4%**

	FY 2018	FY 2017 (Restated)	$ Change	% Change
Aviation Operations and Maintenance	$ 296.2	$ 274.5	$ 21.7	7.9%
Maritime Operations and Maintenance	64.0	59.6	4.4	7.4%
Real Estate Operations and Maintenance	14.9	13.2	1.7	12.9%
General and Administrative	62.5	59.4	3.1	5.2%
Payments in Lieu of Taxes	20.4	19.3	1.1	5.7%
Pension and Other Post-employment Benefits	29.0	38.9	(9.9)	-25.4%
Other	8.4	9.6	(1.2)	-12.5%
Depreciation and Amortization	262.1	252.8	9.3	3.7%
Total Operating Expenses	**$ 757.5**	**$ 727.3**	**$ 30.2**	**4.2%**

FY19 Operating Expenses by Category
(% of Total Expenses)



Aviation Operations and Maintenance Expenses – FY 2019

In fiscal year 2019, aviation operations and maintenance expenses were $305.6 million, an increase of $9.4 million or 3.2% over the previous year. The breakdown of aviation operations and maintenance expenses by each of Massport's aviation facilities is provided below:

Aviation Operating and Maintenance Expenses
($ millions)

	FY 2019	FY 2018	FY 2017
Logan	$ 285.5	$ 277.4	$ 257.8
Hanscom	10.6	11.8	10.2
Worcester	9.5	7.0	6.5
Total	$ 305.6	$ 296.2	$ 274.5

Logan Airport Operations and Maintenance Expenses – FY 2019

Operations and maintenance expenses for Logan Airport in fiscal year 2019 were $285.5 million and accounted for approximately 93.4% of all aviation operations and maintenance expenses and 73.8% of the Authority's total operations and maintenance expenses. In fiscal year 2019, operations and maintenance expenses for Logan Airport increased by $8.1 million, or 2.9% over the prior year.

Increased business activity resulted in a $1.8 million cost increase for shuttle bus operations, terminal building cleaning, and rubbish removal. Wage and benefit expense was higher by $2.2 million due to merit increases and collectively bargained wage adjustments. State Police expenses were higher by $2.7 million due primarily to a new class of 30 troopers to bolster security at Logan Airport. Expenses were also higher by $3.0 million for the new Logan commissary, which is part of an enhanced security plan at the airport. Utility expenses decreased by $0.9 million due to lower electricity cost driven by the upgrade of the chillers at the heating plant. Snow-related costs decreased by $2.0 million as the Authority required less overtime, services and supplies to keep the airport operational as there was only 28 inches of snowfall in FY19 versus 54 inches in FY18. Other expenses were higher by $1.3 million.

Logan Airport Operations and Maintenance Expenses – FY 2018

Operations and maintenance expenses for Logan Airport in fiscal year 2018 were $277.4 million and accounted for approximately 94% of all aviation operations and maintenance expenses and 74% of the Authority's total operations and maintenance expenses. They increased by $19.6 million, or 7.6% over the prior year.

Increased business activity resulted in a $2.7 million cost increase for items including shuttle bus operations, terminal building cleaning, overtime for Logan Airport ground traffic control and credit card processing fees for parking operations. Utility expenses increased by $3.5 million due to a 23% increase in the cost of electricity, payroll expense was higher by $4.3 million due to merit increases and collectively bargained wage adjustments, and weather-related costs increased by $2.5 million due to 60 inches of snowfall in FY18 versus 48 inches in FY17. The remaining increase in expense was due to remediation work, Logan Terminal B and C roadway modifications, training of a new State Police class, and a one-time asset write down.

Hanscom Field and Worcester Airport Operations and Maintenance Expenses – FY 2019

In fiscal year 2019, operations and maintenance expenses for Hanscom Field were $10.6 million, a decrease of $1.2 million or 10.2% versus the prior year. The decrease was primarily attributable to a $1.1 million reduction in repairs expense as fiscal year 2018 included $1.0 million for property repairs related to flooding from a July 2017 rain storm. Remediation and services costs were lower in fiscal year 2019 by $0.9 million. These were mostly offset by an increase in expenses related to additional ARFF (Aircraft Rescue and Firefighting) personnel, gear and training.

Operations and maintenance expenses for Worcester Regional Airport were $9.5 million, a $2.5 million or 35.7% increase. Contributors to the expense increase included $1.3 million for an increase in ARFF personnel, gear and training, $0.5 million for higher materials and supplies including tool and deicing fluid purchases, and $0.7 million for an increase in services, repairs and other miscellaneous expenses.

Hanscom Field and Worcester Airport Operations and Maintenance Expenses – FY 2018

In fiscal year 2018, operations and maintenance expenses for Hanscom Field were $11.8 million, an increase of $1.6 million or 15.7% over the prior year. The majority of the increase was due to $1.0 million for property repairs related to flooding from a July 2017 rain storm, and most of this expense is being recovered through an insurance claim. The remaining $0.5 million increase was attributable to higher payroll and benefits expense.

Operations and maintenance expenses for Worcester Regional Airport were $7.0 million, a $0.5 million or 7.7% increase. Contributors to the expense increase included $0.2 million for higher payroll and benefits expense, $0.1 million for higher utility costs, and $0.2 million for additional materials, supplies and other miscellaneous expenses.

Maritime Operations and Maintenance Expenses – FY 2019

Maritime operations and maintenance expenses were $64.4 million, $0.4 million or 0.6% higher than the prior year. Higher business activity resulted in a $1.5 million increase in stevedoring expense to handle the 8.3% increase in container volume (TEUs). Other increases included a $0.2 million increase in payroll and benefits expense.

Expenses for services decreased in fiscal year 2019 by $0.5 million versus the prior year. The primary driver was a milder winter, which resulted in lower snow removal services. Materials and supplies expense declined slightly in fiscal year 2019 by $0.2 million. Other expenses were lower by $0.6 million due to lower remediation costs, lower repair costs, and lower professional fees in fiscal year 2019.

Maritime Operations and Maintenance Expenses – FY 2018

Maritime operations and maintenance expenses in fiscal year 2018 were $64.0 million, $4.4 million or 7.4% higher than the prior year. Higher business activity resulted in a $3.2 million increase in expenses, $2.9 million of which was for stevedoring container handling costs to support the 10.4% increase in container volume while the remainder was for overtime required to support record container and cruise activity. Other increases included $0.6 million for higher weather-related expenses due to 60 inches of snow in FY18 versus 48 inches in FY17, an increase of $0.5 million for utility expenses due to higher electricity costs, and payroll and benefits expense of $0.3 million.

Real Estate Operations and Maintenance Expenses – FY 2019

Real Estate operations and maintenance costs in fiscal year 2019 were $16.9 million, up $2.0 million or 13.4% versus the prior year. Wage and benefit expenses were higher by $1.3 million due in part to additional staffing to support an increase in properties being developed. State Police costs were higher by $0.4 million. Professional fees increased by $0.3 million for planning resources to help develop several parcels of land. Other miscellaneous expenses were higher by $0.6 million. Repair expenses decreased by $0.6 million due to lower costs to repair damages to the pier at 88 Black Falcon.

Real Estate Operations and Maintenance Expenses – FY 2018

Real Estate operations and maintenance costs in fiscal year 2018 were $14.9 million, up by $1.7 million or 12.9% versus the prior year. Repair expenses were up by $0.6 million due to damages to the pier at 88 Black Falcon caused by a container ship that broke free from Conley Terminal in a storm. Professional fees increased by $0.4 million for engineering and legal resources to help advance the development of several parcels of land, the Authority incurred a $0.3 million asset write off as part of a parcel development, and payroll and benefits expenses were higher by $0.3 million.

General and Administrative Expenses – FY 2019

The Authority's general and administrative costs were $67.3 million in fiscal year 2019, $4.8 million or 7.7% higher than fiscal year 2018. Employee wage and benefit costs for administrative employees increased by $1.0 million for annual merit pay adjustments, and professional fees for engineering and planning resources grew by $1.2 million. Other expenses were higher by $2.5 million, primarily for items including computer maintenance costs, software licensing fees, special events including the American Association of Airport Executives conference hosted by the Authority, and advertising to promote new initiatives.

The following table shows the allocation of the Authority's general and administrative expenses by business line for fiscal years 2019, 2018 and 2017.

General and Administrative Expenses
($ millions)

	FY 2019	FY 2018	FY 2017 (Restated)
Logan	$ 46.1	$ 43.6	$ 42.5
Hanscom	3.1	2.3	2.1
Worcester	3.4	2.8	2.3
Maritime	9.2	8.5	8.1
Real Estate	5.4	5.3	4.4
Total	**$ 67.3**	**$ 62.5**	**$ 59.4**

General and Administrative Expenses – FY 2018

The Authority's general and administrative costs were $62.5 million in fiscal year 2018, $3.1 million or 5.2% higher than fiscal year 2017. The drivers of the increase include additional payroll costs for administrative employees of $1.7 million primarily for merit based pay increases as new hiring was minimal, and a $0.4 million increase in materials and supplies expense mainly related to computers and copy machines.

PILOT, Pension & OPEB and Other Expenses – FY 2019

In fiscal year 2019, the Authority's PILOT (payment in lieu of tax) payments to the City of Boston and the Town of Winthrop totaled $21.3 million and reflect a $0.9 million or 4.4% increase versus fiscal year 2018. The City of Boston's PILOT payments are contractually linked to the annual rise in the Consumer Price Index (CPI), which added $0.4 million of new costs. The remainder of the increase is related to community mitigation payments made to organizations such as the East Boston Foundation in association with new facilities being constructed at Logan Airport.

The Authority's expenses for pension and OPEB were $40.7 million, an increase of $11.7 million or 40.3% compared to fiscal year 2018. The Authority's pension expense increased by $13.4 million, primarily due to a -4.62% unfavorable net return on pension plan assets versus the 7.25% rate used to project the pension liability. The Authority's OPEB expense decreased by $1.7 million as the net investment return on the OPEB assets of 7.59% was slightly above the 7.25% rate used to project the OPEB liability net of amortization of prior years' losses. The measurement period for the pension assets was calendar year ended December 31, 2018, while the measurement period for OPEB was fiscal year ended June 30, 2018.

The following table shows the allocation of PILOT, Pension, OPEB, and other expenses by business line for fiscal years 2019 and 2018.

FY19 - PILOT, Pension, OPEB, and Other Expenses
($ millions)

	PILOT	PENSION	OPEB	OTHER	TOTAL
Logan	$ 18.8	$ 17.4	$ 14.4	$ 6.2	$ 56.8
Hanscom	0.0	0.7	0.6	0.2	1.5
Worcester	0.0	0.8	0.4	0.4	1.6
Maritime	1.3	2.3	2.4	1.4	7.4
Real Estate	1.2	1.0	0.7	0.4	3.3
Total	**$ 21.3**	**$ 22.2**	**$ 18.5**	**$ 8.6**	**$ 70.6**

FY18 - PILOT, Pension, OPEB, and Other Expenses
($ millions)

	PILOT	PENSION	OPEB	OTHER	TOTAL
Logan	$ 18.2	$ 7.0	$ 15.9	$ 5.8	$ 46.9
Hanscom	0.0	0.3	0.6	0.3	1.2
Worcester	0.0	0.3	0.4	0.2	0.9
Maritime	1.3	0.8	2.4	1.8	6.3
Real Estate	0.9	0.4	0.9	0.3	2.5
Total	**$ 20.4**	**$ 8.8**	**$ 20.2**	**$ 8.4**	**$ 57.8**

PILOT, Pension & OPEB and Other Expenses – FY 2018

In fiscal year 2018, the Authority's PILOT payments to the City of Boston and the Town of Winthrop totaled $20.4 million and reflect a $1.1 million or 5.7% increase versus fiscal year 2017. The City of Boston's PILOT payments are contractually linked to the annual rise in the Consumer Price Index (CPI), which added $0.4 million of new costs. The remaining increase is for community mitigation payments to organizations such as the East Boston Foundation.

The Authority's expenses for pension and OPEB were $29.0 million, a decrease of $9.9 million or 25.4% compared to fiscal year 2017. The Authority's pension expense decreased by $10.9 million, primarily due to a 16.50% favorable net return on pension plan assets versus the 7.25% rate used to project the pension liability. The Authority's OPEB expense increased by $1.0 million due to higher premium costs for benefits paid to retirees and an increase in the number of members receiving benefits, partially offset by an 11.85% favorable net return on the OPEB assets versus the 7.25% rate used to project the OPEB liability net of amortization of prior year losses. The investment return on the pension assets was higher than the return for the OPEB assets as the measurement period for the pension assets was calendar year ended December 31, 2017, while the measurement period for OPEB was fiscal year ended June 30, 2017.

Please see Note 6 (Pension Plan), Note 7 (OPEB) and Note 10 (PILOT) in the attached financial statements.

Depreciation and Amortization Expenses – FY 2019

The Authority recognized $288.3 million in depreciation and amortization expenses in fiscal year 2019, an increase of $26.2 million or 10.0% compared to fiscal year 2018. The increase reflects the Authority's refunding of the Terminal A Special Facility Bonds during fiscal year 2019, which resulted in an additional $14.4 million of depreciation. The remaining increase of $11.8 million or 4.5% is the result of $370.3 million in new assets (excluding Terminal A) being placed into service. During fiscal year 2019, major projects completed and placed into service included Terminal B Optimization ($149.0 million), Conley Terminal Berths 11 and 12 Rehabilitation ($30.8 million), Logan Terminal C Optimization and Terminals B – C Connector ($18.0 million), Logan Central Heating Plant Upgrade ($12.2 million), and Phase 2 of the HVAC Replacement at Logan Terminals B, C and E ($9.2 million).

Depreciation and Amortization Expenses – FY 2018

The Authority recognized $262.1 million in depreciation and amortization expenses in fiscal year 2018, an increase of $9.3 million or 3.7% compared to fiscal year 2017. This increase is the result of $294.3 million in new assets being placed into service. During fiscal year 2018, the

Authority completed and placed into service assets including the South Boston Waterfront Transportation Center ($84.4 million), the Conley Terminal Dedicated Freight Corridor ($36.8 million), the CAT III Instrument Landing System at Worcester Airport ($30.2 million), and modifications to Gates 37 and 38 at Logan Airport ($19.4 million).

NON-OPERATING REVENUES (EXPENSES) AND CAPITAL CONTRIBUTIONS

The Authority recognized a net $91.4 million in non-operating revenues in fiscal year 2019, an increase of $39.5 million, or 76.1%, over fiscal year 2018. Non-operating revenues in fiscal year 2018 were $51.9 million, an increase of $8.8 million or 20.4% over the $43.1 million recognized in fiscal year 2017.

Non-operating Revenues and Expenses and Capital Contributions

($ millions)

	FY 2019	FY 2018	$ Change	% Change
Passenger facility charges	$ 84.8	$ 81.0	$ 3.8	4.7%
Customer facility charges	33.5	33.0	0.5	1.5%
Investment income	29.8	18.6	11.2	60.2%
Other income (expense), net	26.8	(1.0)	27.8	-2780.0%
Terminal A debt service contributions	(7.5)	(12.2)	4.7	-38.5%
Interest expense	(76.0)	(67.5)	(8.5)	12.6%
Total Non-operating Revenues (Expenses)	**$ 91.4**	**$ 51.9**	**$ 39.5**	**76.1%**
Capital Contributions	**$ 28.2**	**$ 25.4**	**$ 2.8**	**11.0%**

	FY 2018	FY 2017	$ Change	% Change
Passenger facility charges	$ 81.0	$ 76.3	$ 4.7	6.2%
Customer facility charges	33.0	33.1	(0.1)	-0.3%
Investment income	18.6	13.1	5.5	42.0%
Other income (expense), net	(1.0)	(0.3)	(0.7)	233.3%
Terminal A debt service contributions	(12.2)	(11.9)	(0.3)	2.5%
Interest expense	(67.5)	(67.2)	(0.3)	0.4%
Total Non-operating Revenues (Expenses)	**$ 51.9**	**$ 43.1**	**$ 8.8**	**20.4%**
Capital Contributions	**$ 25.4**	**$ 12.6**	**$ 12.8**	**101.6%**

For fiscal year 2019, PFCs were $84.8 million, a $3.8 million or 4.7% increase over the prior year due to increased passenger activity at Logan Airport. Revenues from CFCs totaled $33.5 million, a $0.5 million or 1.5% increase versus prior year as rental car transaction days at Logan Airport's Rental Car Center were higher by 1.6%. The Authority also generated $29.8 million of investment income, an increase of $11.2 million due to higher interest rates on fixed income investments and an increase in the Authority's cash balance available for investment. Other income was $26.8 million, which was $27.8 million higher than prior year. The fiscal year 2019 amount includes a $20.2 million gain from the refinancing of debt related to Terminal A and a $7.0 million unrealized gain on the fair value of investments. The Authority made a voluntary contribution of $7.5 million in PFCs to the Terminal A debt service fund to help reduce terminal rental rates, which was only a partial year amount due to the refinancing of the debt related to Terminal A and was thus lower than the $12.2 million contribution in the prior year. Interest expense was $76.0 million, up $8.5 million or 12.6% versus fiscal year 2018 due to a higher debt balance.

For fiscal year 2018, PFCs were $81.0 million, a $4.7 million or 6.2% increase over the prior year due to increased passenger activity at Logan Airport. Revenues from CFCs totaled $33.0 million, basically flat versus prior year as rental car transaction days at Logan Airport's Rental Car Center were relatively constant with prior year. The Authority also generated $18.6 million of investment income, an increase of $5.5 million due to higher interest rates on fixed income investments and an increase in the Authority's cash balance available for investment. Other expense was $1.0 million, which was $0.7 million higher than prior year due to miscellaneous items including settlement claims, gains or losses on short term investments and gains or losses on sale of equipment. The Authority made a voluntary contribution of $12.2 million in PFCs to the Terminal A debt service fund to help reduce terminal rental rates, which was slightly higher than the contribution made in the prior year. Interest expense on long term debt was $67.5 million, which was $0.3 million or 0.4% higher than fiscal year 2017.

Capital Contributions

Capital contributions in fiscal year 2019 were $28.2 million, an increase of $2.8 million versus the prior year. The major components of the 2019 revenues were from the FAA AIP grant program and from the MARAD (Maritime Administration unit of the United States Department of Transportation) FASTLANE grant. Major projects funded by AIP grants included the rehabilitation of taxiways east alpha and bravo at Logan Airport, a new ARFF and CBP facility at Hanscom Field, and the rehabilitation of runway 15-33 at Worcester Regional Airport. MARAD grant funds were primarily used for the rehabilitation of Conley Terminal Berths 11 and 12, paving of the reefer area at Conley Terminal, and the replacement of RTG (Rubber Tired Gantry) drives. As of June 30, 2019, the Authority was entitled to $20.9 million or 49.8% of the $42.0 million MARAD FASTLANE grant based on work that has been completed. The total capital contributions increase of $2.8 million versus last year was due to a $1.6 million increase in FAA AIP funding and a $1.2 million increase in MARAD funding.

Capital contributions in fiscal year 2018 were $25.4 million, an increase of $12.8 million versus the prior year. The major components of the 2018 revenues were from the FAA AIP grant program for project expenditures related to runway rehabilitation and improvements at Logan Airport and the CAT III ILS project at Worcester Regional Airport, and from MARAD for the rehabilitation of Conley Terminal Berths 11 and 12 and the replacement of RTG (Rubber Tired Gantry) drives. The $12.8 million increase versus last year was primarily due to $10.2 million of MARAD FASTLANE grant funding, which began in FY 2018, and $2.3 million of additional FAA AIP funding versus the prior year.

THE AUTHORITY'S STATEMENTS OF NET POSITION

The Statements of Net Position present the financial position of the Authority at the end of each fiscal year. The Statements include all assets, deferred outflows of resources, liabilities and deferred inflows of resources of the Authority. Net Position is the difference between total assets plus deferred outflows of resources less total liabilities and deferred inflows of resources and is an indicator of the current fiscal health of the Authority. A summarized comparison of the Authority's assets, deferred outflows of resources, liabilities, deferred inflows of resources and net position at June 30, 2019, 2018 and 2017 is as follows:

Condensed Statements of Net Position for FY 2019 and FY 2018

($ millions)

	FY 2019	FY 2018	$ Change	% Change
Assets				
Current assets	$ 902.1	$ 948.4	($ 46.3)	-4.9%
Capital assets, net	3,725.3	3,216.3	509.0	15.8%
Other non-current assets	506.4	402.6	103.8	25.8%
Total Assets	**5,133.8**	**4,567.3**	**566.5**	**12.4%**
Deferred Outflows of Resources				
Deferred loss on refunding of bonds	14.7	16.2	(1.5)	-9.3%
Deferred outflows of resources related to Pension plan	51.9	13.9	38.0	273.4%
Deferred outflows of resources related to OPEB	36.2	29.0	7.2	24.8%
Total Deferred Outflows of Resources	**102.8**	**59.1**	**43.7**	**73.9%**
Liabilities				
Current liabilities	$ 366.9	$ 360.6	$ 6.3	1.7%
Bonds payable, including current portion	2,176.2	1,835.3	340.9	18.6%
Other non-current liabilities	293.6	233.8	59.8	25.6%
Total Liabilities	**2,836.7**	**2,429.7**	**407.0**	**16.8%**
Deferred Inflows of Resources				
Deferred gain on refunding of bonds	5.2	6.1	(0.9)	-14.8%
Deferred inflows of resources related to Pension plan	2.6	25.4	(22.8)	-89.8%
Deferred inflows of resources related to OPEB	16.0	0.8	15.2	1900.0%
Total Deferred Inflows of Resources	**23.8**	**32.3**	**(8.5)**	**-26.3%**
Total Net Position	**$ 2,376.2**	**$ 2,164.3**	**$ 211.9**	**9.8%**

Column totals may not add due to rounding.

The Authority ended fiscal year 2019 with total assets of $5,133.8 million, an increase of $566.5 million or 12.4% over the prior year. This increase is primarily due to the growth in capital assets, net, which increased by $509.0 million due primarily to the refunding of the Terminal A Special Facility Bonds during fiscal year 2019. This accounts for $344.5 million ($358.9 million asset net of $14.4 million accumulated depreciation) of the increase. The remaining $164.5 million is from new assets being placed into service. Deferred outflows of resources were $102.8 million, a $43.7 million increase from the previous year due to an increase in the deferred outflows on the OPEB and Pension Plan investments from unfavorable investment gains on plan assets and higher amortization of prior year losses. The Authority's total assets consist primarily of capital assets, net, which represent $3,725.3 million or 71.1% of the Authority's total assets and deferred outflows of resources as of June 30, 2019.

The Authority's total liabilities as of June 30, 2019 were $2,836.7 million, an increase of $407.0 million or 16.8% as the bonds payable balance increased $340.9 million due to issuances during fiscal year 2019. Bonds payable (including current portion) is the largest component of total liabilities, and accounted for 76.1% of the Authority's total liabilities and deferred inflows at June 30, 2019.

The Authority's total net position for fiscal year 2019 was $2,376.2 million, a $211.9 million or 9.8% increase over the prior year. This increase reflects the Authority's net operating income of $92.3 million, net non-operating income of $91.4 million and capital contributions of $28.2 million. The growth in net position will be used to fund the Authority's strategic initiatives.

Condensed Statements of Net Position for FY 2018 and FY 2017

($ millions)

	FY 2018	FY 2017 (Restated)	$ Change	% Change
Assets				
Current assets	$ 948.4	$ 803.9	$ 144.5	18.0%
Capital assets, net	3,216.3	3,142.5	73.8	2.3%
Other non-current assets	402.6	420.1	(17.5)	-4.2%
Total Assets	**4,567.3**	**4,366.5**	**200.8**	**4.6%**
Deferred Outflows of Resources				
Deferred loss on refunding of bonds	16.2	18.0	(1.8)	-10.0%
Deferred outflows of resources related to Pension plan	13.9	37.3	(23.4)	-62.7%
Deferred outflows of resources related to OPEB	29.0	37.7	(8.7)	-23.1%
Total Deferred Outflows of Resources	**59.1**	**93.0**	**(33.9)**	**-36.5%**
Liabilities				
Current liabilities	$ 360.6	$ 308.0	$ 52.6	17.1%
Bonds payable, including current portion	1,835.3	1,850.7	(15.4)	-0.8%
Other non-current liabilities	233.8	285.9	(52.1)	-18.2%
Total Liabilities	**2,429.7**	**2,444.6**	**(14.9)**	**-0.6%**
Deferred Inflows of Resources				
Deferred gain on refunding of bonds	6.1	6.8	(0.7)	-10.3%
Deferred inflows of resources related to Pension plan	25.4	0.0	25.4	100.0%
Deferred inflows of resources related to OPEB	0.8	0.0	0.8	100.0%
Total Deferred Inflows of Resources	**32.3**	**6.8**	**25.5**	**375.0%**
Total Net Position	**$ 2,164.3**	**$ 2,008.1**	**$ 156.2**	**7.8%**

The Authority ended fiscal year 2018 with total assets of $4,567.3 million, an increase of $200.8 million or 4.6% over the prior year. This increase is primarily due to growth in current assets due to higher investment balances from bond proceeds and additional income from FY18 operations. Deferred outflows of resources for fiscal year 2018 were $59.1 million, a $33.9 million decrease from the previous year due to a reduction in the deferred outflows on the OPEB and Pension Plan investments from favorable investment gains on plan assets and less amortization of prior year losses. The Authority's total assets consist primarily of capital assets, net, which represent approximately $3,216.3 million or 69.5% of the Authority's total assets and deferred outflows of resources as of June 30, 2018.

The Authority's total liabilities as of June 30, 2018 were $2,429.7 million, a decrease of $14.9 million or 0.6% due mainly to the decline in the Authority's pension and OPEB liabilities due to favorable investment returns. The Authority's liabilities consist primarily of bonds payable (including current portion), which accounted for 74.5% of the Authority's total liabilities and deferred inflows at June 30, 2018.

The Authority's total net position for fiscal year 2018 was $2,164.3 million, a $156.2 million or 7.8% increase over the prior year. This increase reflects the Authority's net operating income of $78.9 million, net non-operating income of $51.9 million and capital contributions of $25.4 million. The growth in net position will be used to fund the Authority's strategic initiatives.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

As of June 30, 2019 and 2018, the Authority had $3,725.3 million and $3,216.3 million of capital assets (net of accumulated depreciation), respectively. These include land, construction in process, buildings, runways, roadways, machinery and equipment, air rights and parking rights. The Authority's net capital assets increased by $509.0 million or 15.8% in fiscal year 2019 primarily as the result of the addition of $797.3 million in capital expenditures partially offset by $288.3 million of depreciation expense.

In fiscal year 2019, the Authority placed $729.2 million of new assets into service. The largest component was Terminal A at Logan Airport with an asset value of $358.9 million, due to the refunding of the Terminal A Special Facility Bonds during fiscal year 2019. Other significant assets completed and placed into service include $149.0 million for Terminal B Optimization, $30.8 million for Conley Terminal Berths 11 and 12 Rehabilitation, $18.0 million for Logan Terminal C Optimization and Terminals B – C Connector, $12.2 million for the Logan Central Heating Plant Upgrade, and $9.2 million for Phase 2 of the HVAC Replacement at Logan Terminals B, C and E.

In fiscal year 2018, the Authority placed $294.3 million of new assets into service. Major projects included the South Boston Waterfront Transportation Center which includes 1,550 parking spaces and other transportation amenities at a cost of $84.4 million, the Conley Terminal Dedicated Freight Corridor at a cost of $36.8 million, the CAT III Instrument Landing System at Worcester Airport to enable aircraft to land at that airport in poor visibility conditions at a cost of $30.2 million, and modifications to Gates 37 and 38 at Logan Airport at a cost of $19.4 million.

Capital assets, net comprised 71.1%, 69.5% and 70.5% of the Authority's total assets and deferred outflows of resources at June 30, 2019, 2018 and 2017, respectively. During fiscal years 2019, 2018 and 2017, the Authority spent approximately $759.9 million (including the $358.9 million related to the refunding of debt for Logan Terminal A), $293.2 million and $322.7 million, respectively, constructing new assets and improving existing assets already in service, inclusive of construction in process.

The Authority's capital assets are principally funded by the proceeds of revenue bonds, Authority generated revenues, PFCs, CFCs, and federal and state grants. The Authority's aviation facilities account for approximately 88.3% of all capital assets. The following chart provides a breakdown of total capital assets at June 30 2019, 2018 and 2017.

Capital Assets by Type
($ thousands)

	FY 2019	FY 2018	FY 2017	% Change 2019-2018	% Change 2018-2017
Land	$ 230,600	$ 230,600	$ 230,593	0.0%	0.0%
Construction in progress	260,888	192,782	149,730	35.3%	28.8%
Buildings	2,190,942	1,727,729	1,727,657	26.8%	0.0%
Runways and other pavings	386,629	389,082	364,152	-0.6%	6.8%
Roadways	316,585	345,881	327,839	-8.5%	5.5%
Machinery and equipment	275,111	258,063	262,306	6.6%	-1.6%
Air rights	46,015	52,143	58,628	-11.8%	-11.1%
Parking rights	18,504	20,047	21,588	-7.7%	-7.1%
Capital assets, net	**$ 3,725,274**	**$ 3,216,327**	**$ 3,142,493**	**15.8%**	**2.3%**

Please see Note 4, Capital Assets in the attached financial statements.

Debt Administration

The Authority's bond sales must be approved by the Members of the Authority (the "Board") and must comply with the rules and regulations of the United States Treasury Department. The Authority, through its 1978 Trust Agreement, has a covenant to maintain a debt service coverage ratio of not less than 1.25. Debt service coverage is calculated based on a formula set forth in the 1978 Trust Agreement. Historically, the Authority has maintained a debt service coverage ratio higher than its 1978 Trust Agreement requirement to maintain its high investment grade bond ratings and keep capital costs low. As of June 30, 2019, 2018, and 2017, the Authority's debt service coverage under the 1978 Trust Agreement was 3.66, 3.43 and 3.27 respectively.

The CFC Trust Agreement requires that the Authority maintain a debt service coverage ratio of at least 1.30. As of June 30, 2019, 2018, and 2017, the CFC debt service coverage ratio was 2.86, 2.65 and 2.60 respectively.

The Authority had net bonds payable and subordinated obligations outstanding as of June 30, 2019 in the amount of $1,983.1 million, a net increase of $299.1 million compared to fiscal year 2018. During fiscal year 2019, the Authority issued $315.2 million of Massachusetts Port Authority Revenue Bonds Series 2019-A with an original issue premium of $49.5 million. Approximately $358.9 million of the proceeds from the Series 2019-A Bonds was used to refund the entire outstanding balance of the Authority's Special Facilities Revenue Bonds (Delta Air Lines, Inc. Project), Series 2001-A, 2001-B and 2001-C, resulting in a net present value benefit of $34.2 million. As a result of the refunding, the Authority recognizes all Terminal A rental revenue as revenue under the 1978 Trust Agreement.

In addition, on November 20, 2018, the Authority issued its Subordinated Obligations, Series 2018-A (AMT) in the aggregate principal amount of up to $107.5 million to provide bridge financing for the Commonwealth's portion of the costs of design and construction of the new Berth 10 at Conley Terminal. The Series 2018 Subordinated Obligations were sold in a private placement transaction to a bank lender, bear a variable rate of interest and mature on July 1, 2028. As of June 30, 2019 the amount outstanding was $40.0 million. For additional information on this debt, see Note 5(d).

The Authority had net bonds payable outstanding as of June 30, 2018 in the amount of $1,684.0 million, a net decrease of $34.8 million compared to fiscal year 2017. During fiscal year 2018, the Authority issued $169.5 million of Massachusetts Port Authority Revenue Bonds Series 2017-A with an original issue premium of $27.2 million. Approximately $91.4 million of the proceeds from the Series 2017-A Bonds was used to refund the entire outstanding balances of the Authority's 2007 Series C and 2010 Series D bonds, resulting in a net present value benefit to the Authority of $2.8 million. The remaining $91.0 million of Series 2017-A proceeds is being used to finance capital improvements, with the primary project being the consolidation and optimization of Terminal B at Logan Airport. Due to the "private activity" nature of the construction projects, the bonds were sold as Alternative Minimum Tax (AMT) bonds.

The Official Statements relating to the Authority's bond issuances are available from the Authority or by accessing the Authority's website.

Please see Note 5, Bonds and Notes Payable in the attached Financial Statements.

THE AUTHORITY'S CONDENSED CASH FLOWS

The following summary shows the major sources and uses of cash during the following years:

Statements of Cash Flows
($ millions)

Cash Flow (in millions)

	FY 2019	FY 2018	$ Change	% Change
Net cash provided by operating activities	$ 372.9	$ 334.0	$ 38.9	11.6%
Net cash (used in) capital and related financing activities	(372.1)	(228.1)	(144.0)	63.1%
Net cash provided / (used in) investing activities	76.9	(166.3)	243.2	-146.2%
Net increase / (decrease) in cash and cash equivalents	77.8	(60.4)	138.2	-228.8%
Cash and cash equivalents, beginning of year	212.6	273.0	(60.4)	-22.1%
Cash and cash equivalents, end of year	**$ 290.3**	**$ 212.6**	**$ 77.7**	**36.5%**

	FY 2018	FY 2017	$ Change	% Change
Net cash provided by operating activities	$ 334.0	$ 315.1	$ 18.9	6.0%
Net cash (used in) capital and related financing activities	(228.1)	(164.3)	(63.8)	38.8%
Net cash (used in) investing activities	(166.3)	(128.3)	(38.0)	29.6%
Net (decrease)/increase in cash and cash equivalents	(60.4)	22.5	(82.9)	-368.4%
Cash and cash equivalents, beginning of year	273.0	250.5	22.5	9.0%
Cash and cash equivalents, end of year	**$ 212.6**	**$ 273.0**	**($ 60.4)**	**-22.1%**

The Authority's cash and cash equivalents at June 30, 2019 was $290.3 million, an increase of $77.7 million or 36.5% from the $212.6 million in cash and cash equivalents reported in fiscal year 2018. The Authority generated $372.9 million in cash from operations during fiscal year 2019 compared to $334.0 million in the prior year, an increase of $38.9 million, or 11.6%, primarily from increased business activity at Logan Airport, record container volumes at Conley Terminal, and activity at its other facilities. The Authority used $372.1 million in cash for capital and related financing activities to finance the Authority's capital program and to pay debt service expenses during the year. This was a $144.0 million increase from the prior year due mainly to the use of cash for capital assets including Terminal A partially offset by an increase in proceeds from the issuance of bonds. The Authority generated $76.9 million in cash from investments, an increase of $243.2 million from the $166.3 million of cash used for investing activities in fiscal year 2018.

The Authority's cash and cash equivalents at June 30, 2018 was $212.6 million, a decrease of $60.4 million, or 22.1% from the $273.0 million in cash and cash equivalents reported in fiscal year 2017. The Authority generated $334.0 million in cash from operations during fiscal year 2018 compared to $315.1 million in the prior year, an increase of $18.9 million, or 6.0%, primarily from increased business activity at Logan Airport, record container volumes at Conley Terminal, and activity at its other facilities. The Authority used $228.1 million in cash for capital and related financing activities to finance the Authority's capital program and to pay debt service expenses during the year. This was a $63.8 million increase in the use of cash from the $164.3 million in cash used for capital and related financing activities in fiscal year 2017 due mainly to lower proceeds from the issuance of bonds, net. The Authority used $166.3 million in cash from investments towards its capital and operating needs, an increase of $38.0 million from the amount of cash used for investing activities in fiscal year 2017.

Contacting the Authority's Financial Management

For additional information concerning the Authority and the Retirement System, please see the Authority's website, www.massport.com. Financial information can be found by clicking on "Finance". The Authority's executive offices are located at One Harborside Drive, Suite 200S, East Boston, Massachusetts 02128, and the main telephone number is (617) 568-5000. Questions may be directed to John P. Pranckevicius, CPA, Director of Administration and Finance, and Secretary-Treasurer for the Massachusetts Port Authority.

MASSACHUSETTS PORT AUTHORITY

Statements of Net Position

June 30, 2019 and 2018

(In thousands)

	2019	2018
Current assets:		
Cash and cash equivalents	$ 74,191	$ 73,299
Investments	195,967	170,039
Restricted cash and cash equivalents	216,153	139,285
Restricted investments	310,976	478,519
Accounts receivable		
Trade, net	87,315	68,085
Grants receivable	7,123	9,948
Total receivables (net)	94,438	78,033
Prepaid expenses and other assets	10,411	9,171
Total current assets	902,136	948,346
Noncurrent assets:		
Investments	142,665	132,105
Restricted investments	352,684	261,576
Prepaid expenses and other assets	7,591	5,796
Investment in joint venture	3,495	3,130
Capital assets-not being depreciated	491,488	423,382
Capital assets-being depreciated-net	3,233,786	2,792,945
Total noncurrent assets	4,231,709	3,618,934
Total assets	5,133,845	4,567,280
Deferred outflows of resources		
Deferred loss on refunding of bonds	14,674	16,243
Deferred outflows of resources related to pensions	51,895	13,869
Deferred outflows of resources related to OPEB	36,206	28,974
Total deferred outflows of resources	102,775	59,086
Current liabilities:		
Accounts payable and accrued expenses	196,486	160,488
Compensated absences	1,299	1,327
Contract retainage	10,021	6,022
Current portion of long term debt	66,801	62,951
Commercial notes payable	104,000	142,000
Accrued interest on bonds payable	45,517	40,552
Unearned revenues	9,597	10,185
Total current liabilities	433,721	423,525
Noncurrent liabilities:		
Accrued expenses	9,938	11,300
Compensated absences	16,618	17,566
Net pension liability	104,920	34,927
Net OPEB liability	134,549	143,858
Contract retainage	7,494	5,778
Long-term notes payable	40,000	—
Long-term debt, net	2,069,399	1,772,365
Unearned revenues	20,037	20,419
Total noncurrent liabilities	2,402,955	2,006,213
Total liabilities	2,836,676	2,429,738
Deferred inflows of resources		
Deferred gain on refunding of bonds	5,243	6,074
Deferred inflows of resources related to pensions	2,551	25,390
Deferred inflows of resources related to OPEB	15,981	831
Total deferred inflows of resources	23,775	32,295
Net position		
Net investment in capital assets	1,489,809	1,379,079
Restricted		
Bond funds	242,702	212,738
Project funds	267,656	271,003
Passenger facility charges	60,999	51,133
Customer facility charges	87,207	67,161
Other purposes	31,401	31,233
Total restricted	689,965	633,268
Unrestricted	196,395	151,986
Total net position	$ 2,376,169	$ 2,164,333

The accompanying notes are an integral part of these financial statements.

MASSACHUSETTS PORT AUTHORITY

Statements of Revenues, Expenses, and Changes in Net Position

Years ended June 30, 2019 and 2018

(In thousands)

	2019	2018
Operating revenues:		
Aviation rentals	$ 267,055	$ 240,798
Aviation parking	182,135	180,803
Aviation shuttle bus	21,196	20,303
Aviation fees	153,194	153,236
Aviation concessions	130,801	114,492
Aviation operating grants and other	2,034	1,911
Maritime fees, rentals and other	102,774	94,351
Real estate fees, rents and other	46,334	30,497
Total operating revenues	905,523	836,391
Operating expenses:		
Aviation operations and maintenance	305,596	296,186
Maritime operations and maintenance	64,412	63,976
Real estate operations and maintenance	16,898	14,852
General and administrative	67,273	62,470
Payments in lieu of taxes	21,331	20,408
Pension and other post-employment benefits	40,740	28,952
Other	8,631	8,449
Total operating expenses before depreciation and amortization	524,881	495,293
Depreciation and amortization	288,344	262,162
Total operating expenses	813,225	757,455
Operating income	92,298	78,936
Nonoperating revenues and (expenses):		
Passenger facility charges	84,824	81,016
Customer facility charges	33,517	33,003
Investment income	29,785	18,577
Net increase/(decrease) in the fair value of investments	6,989	(4,373)
Other revenues	21,052	1,364
Settlement of claims	1,469	2,019
Terminal A debt service contribution	(7,494)	(12,232)
Other expenses	(2,940)	(195)
Gain on sale of equipment / property	203	182
Interest expense	(76,010)	(67,490)
Total nonoperating revenues (expenses), net	91,395	51,871
Increase in net position before capital contributions	183,693	130,807
Capital contributions	28,143	25,384
Increase in net position	211,836	156,191
Net position, beginning of year	2,164,333	2,008,142
Net position, end of year	$ 2,376,169	$ 2,164,333

The accompanying notes are an integral part of these financial statements.

MASSACHUSETTS PORT AUTHORITY
Statements of Cash Flows
Years ended June 30, 2019 and 2018
(In thousands)

	2019	2018
Cash flows from operating activities:		
Cash received from customers and operating grants	$ 886,500	$ 833,354
Payments to vendors	(302,276)	(298,606)
Payments to employees	(171,521)	(165,669)
Payments in lieu of taxes	(21,356)	(19,383)
Other post-employment benefits	(18,398)	(15,682)
Net cash provided by operating activities	372,949	334,014
Cash flows from capital and related financing activities:		
Acquisition and construction of capital assets	(401,012)	(293,228)
Acquisition of Terminal A through issuance of Series 2019 A bonds	(358,863)	—
Proceeds from the 2001 Delta Special Facility Bonds refunding	20,186	—
Proceeds from the issuance of bonds	403,866	196,155
Principal payments on refunded debt	—	(94,855)
Interest paid on bonds and notes	(84,956)	(82,151)
Principal payments on long-term debt	(56,105)	(109,425)
Proceeds from commercial paper financing	—	64,000
Principal payments on commercial paper	(38,000)	(31,000)
Terminal A debt service contribution	(7,495)	(12,232)
Proceeds from passenger facility charges	84,254	79,908
Proceeds from customer facility charges	33,266	32,546
Proceeds from capital contributions	31,039	20,698
Settlement of claims	1,544	1,274
Proceeds from sale of equipment	203	170
Net cash used in capital and related financing activities	(372,073)	(228,140)
Cash flows from investing activities:		
Purchases of investments, net	(925,555)	(887,039)
Sales of investments, net	974,767	703,791
Realized (loss)/gain on sale of investments	7	(20)
Interest received on investments	27,665	16,969
Net cash provided by/(used in) investing activities	76,884	(166,299)
Net increase (decrease) in cash and cash equivalents	77,760	(60,425)
Cash and cash equivalents, beginning of year	212,584	273,009
Cash and cash equivalents, end of year	$ 290,344	$ 212,584
Reconciliation of operating income to net cash provided by operating activities:		
Cash flows from operating activities:		
Operating income	$ 92,298	$ 78,936
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization	288,344	262,162
Provision for uncollectible accounts	385	439
Changes in operating assets and liabilities:		
Trade receivables	(18,985)	406
Prepaid expenses and other assets	(3,020)	3,574
Accounts payable and accrued expenses	8,139	(12,494)
Net pension liability and deferred inflows/outflows	9,127	(4,576)
Net OPEB liability and deferred inflows/outflows	(1,390)	2,993
Compensated absences	(976)	(415)
Unearned revenue	(973)	2,989
Net cash provided by operating activities	$ 372,949	$ 334,014
Noncash investing activities:		
Net increase in the fair value of investments	$ 1,316	$ (5,666)

The accompanying notes are an integral part of these financial statements.

1. Summary of Significant Accounting Policies and Practices

Reporting Entity

The Massachusetts Port Authority (the "Authority") is a body politic and corporate and a public instrumentality of The Commonwealth of Massachusetts (the "Commonwealth") created and existing pursuant to Chapter 465 of the Acts of 1956, as amended, (the "Enabling Act"). The Authority controls, operates and manages Boston-Logan International Airport ("Logan Airport"), Laurence G. Hanscom Field, Worcester Regional Airport, the Port of Boston and other facilities in the Port of Boston.

The Authority has no stockholders or equity holders, and the Authority's financial statements are not a component unit of the Commonwealth's financial statements. The provisions of the Enabling Act and the Trust Agreement, dated as of August 1, 1978 as amended and supplemented (the "1978 Trust Agreement"), between the Authority and U.S. Bank National Association (as successor in interest to State Street Bank and Trust Company), as trustee (the "Trustee"), the Passenger Facility Charges ("PFC") Revenue Bond Trust Agreement dated May 6, 1999, as amended and supplemented (the "PFC Trust Agreement"), between the Authority and The Bank of New York Mellon, as trustee (the "PFC Trustee"), which was superseded by the PFC Depositary Agreement dated July 3, 2017, and the Customer Facility Charges ("CFC") Revenue Bond Trust Agreement dated May 18, 2011, as amended and supplemented (the "CFC Trust Agreement"), between the Authority and U.S. Bank National Association, as trustee (the "CFC Trustee"), govern all funds, with limited exceptions, received by the Authority pursuant to the Enabling Act.

In April 1981, the Authority adopted a retiree benefit plan whereby the Authority assumed the full cost of group health insurance including basic life insurance, dental insurance and catastrophic illness coverage to those retirees and surviving spouses (and qualifying dependents) who have retired under the Authority's retirement system (collectively referred to as the "OPEB Plan"). In June 2009 and May 2016, the Board made changes to the plan benefits to be paid by the Authority for certain existing and future retirees. For additional details, see Note 7.

In June 2008, the Authority created the Retiree Benefits Trust (the "RBT" or the "Trust") to fund its OPEB Plan obligations. It was established as an irrevocable governmental trust under Section 115 of the Internal Revenue Code. In no event shall any part of the principal or income of the RBT be paid or revert back to the Authority or be used for any purpose whatsoever other than for the exclusive benefit of retirees and their beneficiaries.

Basis of Accounting

The Authority's activities are accounted in a manner similar to that often utilized in the private sector. The Authority's financial statements are prepared using the accrual basis of accounting and the economic resources measurement focus in accordance with U.S. generally accepted accounting principles ("GAAP").

Revenues from airlines, rentals, parking fees, tolls and concessions are reported as operating revenues. Capital contributions, PFCs, CFCs and financing or investing related transactions are reported as non-operating revenues and expenses. All expenses related to operating the Authority's facilities are reported as operating expenses.

Accounting per Applicable Trust Agreements

Under the 1978 Trust Agreement, cash of the Authority is deposited daily into the Revenue Fund established pursuant to the 1978 Trust Agreement and is transferred to the cash concentration account. All such revenues are then transferred to the various funds established pursuant to the 1978 Trust Agreement. After providing for operating expenses, including pension expense and transfers to the self insurance account, cash revenues are then transferred to the Interest and Sinking Fund, which are applied to debt service on any outstanding revenue bonds, the Maintenance Reserve Fund, the Payment In Lieu of Taxes Fund, the Capital Budget Fund, if applicable, and finally, the Improvement and Extension Fund.

Prior to July 3, 2017, all PFC revenue was deposited in the PFC Pledged Revenue Fund established pursuant to the PFC Trust Agreement and was utilized to pay debt service on PFC Revenue Bonds as required in the PFC Trust Agreement. Any remaining funds were transferred to the PFC Capital Fund. The Authority paid the final maturities of the PFC Revenue Bonds outstanding of $52.9 million on July 3, 2017 and established a new PFC Depositary Agreement with The Bank of New York, Mellon, as custodian (the "PFC Custodian").

CFC revenue is deposited in the CFC Revenue Fund established pursuant to the CFC Trust Agreement and is utilized to pay debt service on CFC Special Facilities Bonds as required in the CFC Trust Agreement. Any remaining funds are transferred to the CFC Stabilization Fund.

See Note 2 for a reconciliation between the increase in net position as calculated per GAAP and net revenues as calculated per accounting practices prescribed by the 1978 Trust Agreement.

a) Net Position

The Authority follows the "business type" activity requirements of GASB Statement No. 34, *Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments*, as amended, which requires that resources be classified for accounting and reporting purposes into the following three net position components:

- Net investment in capital assets: Capital assets, net of accumulated depreciation and outstanding principal balances of debt and the deferred outflows / inflows of resources attributable to the acquisition, construction or improvement of those assets.
- Restricted: Net position of assets whose use by the Authority is subject to externally imposed stipulations that can be fulfilled by actions of the Authority pursuant to those stipulations or that expire by the passage of time. Such assets include the construction funds held pursuant to the 1978 Trust Agreement, the PFC Trust Agreement (which was

superseded by the PFC Depositary Agreement dated July 3, 2017), the CFC Trust Agreement and the self insurance fund.

- Unrestricted: Net position of assets that are not subject to externally imposed stipulations. Net amounts of assets, deferred outflows of resources, liabilities and deferred inflows of resources not included in the determination of net investment in capital assets or restricted components of net position. Unrestricted net position may be designated for specific purposes by action of management or the Members of the Authority (the “Board”) or may otherwise be limited by contractual agreements with outside parties. When both restricted and unrestricted resources are available for a particular restricted use, it is the Authority’s policy to use restricted resources first, and then unrestricted resources as needed.

b) Deferred outflows/inflows of resources

In addition to assets, the Statement of Net Position reports a separate section for deferred outflows of resources which represents a consumption of net position that applies to a future period and will be recognized as an outflow of resources (expense) in a future period. At June 30, 2019 and 2018, the Authority recognizes deferred outflows for debt refundings, the pension plan, and other post-employment benefits (OPEB).

In addition to liabilities, the Statement of Net Position reports a separate section for deferred inflows of resources which represents an acquisition of net position that applies to a future period and will be recognized as an inflow of resources (revenue) in a future period. At June 30, 2019 and 2018, the Authority recognizes deferred inflows for debt refundings, the pension plan, and other post-employment benefits (OPEB).

Deferred outflows and inflows of resources for debt refundings are amortized over the shorter maturity of the refunded or the refunding debt. The pension and OPEB deferred inflows and outflows related to the difference between expected and actual experience and changes in assumptions are recognized in pension and OPEB expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with pension and OPEB through the plans. The pension and OPEB deferred inflows and outflows related to the difference between projected and actual earnings are recognized in pension and OPEB expense using a systematic and rational method over a closed five-year period.

c) Cash and Cash Equivalents

For purposes of the statements of cash flows, the Authority considers all highly liquid investments, including restricted assets, with an original maturity date of 30 days or less to be cash equivalents.

d) Investments

Investments with a maturity greater than one year are recorded at their fair value with all investment income, including changes in the fair value of investments, reported as investment income in the financial statements. Investments with a maturity date of less than one year are carried at amortized cost, which approximates fair value. Fair value is determined based on quoted market prices. The Authority recorded on investment income an unrealized increase in the fair value of investments of $7.0 million and a realized gain of $0.01 million at June 30, 2019 and an unrealized decrease in the fair value of investments of $4.4 million and a realized loss of $0.02 million at June 30, 2018.

e) Restricted Cash and Investments

Certain cash, cash equivalents and investments are restricted for use by the 1978 Trust Agreement, the PFC Depositary Agreement, the CFC Trust Agreement, and other external requirements. These amounts have been designated primarily for expenditures related to future construction or asset acquisitions, debt service and debt service reserves.

f) Capital Assets

Capital assets are recorded at cost and include land, land improvements, buildings, machinery and equipment, runways, roadways and other paving and non-maintenance dredging. Such costs include, where appropriate, capitalized interest and related legal costs. The costs of normal upkeep, maintenance, maintenance dredging and repairs are not capitalized.

The capitalization threshold is noted below:

Asset Category		Dollar Threshold
Buildings	$	10,000
Machinery & Equipment		5,000
Equipment Repair/Overhaul (Major)		25,000
Runway, Roadways & Other Paving		50,000
Land Improvements		50,000

The Authority capitalizes certain interest costs associated with taxable and tax-exempt borrowing, less any interest earned on the proceeds of those borrowings, during the period of construction. Interest expense of $7.0 million and $10.4 million, reduced by interest income of $125.6 thousand and $537.8 thousand resulted in capitalized interest of $6.9 million and $9.9 million for the years ended June 30, 2019 and 2018, respectively.

g) Depreciation

The Authority provides for depreciation using the straight-line method. Depreciation is intended to distribute the cost of depreciable properties over the following estimated useful lives:

Asset Category	Years
Buildings	25
Air rights	10 to 15
Runways (original construction)	25
Other airfield paving	12
Roadway	25
Roadway-landscaping	10
Dredging	15
Machinery and equipment	5 to 10
Land use rights	30

h) Other Assets and Prepaid Items

Other assets consist of certain payments to vendors reflecting costs applicable to future accounting periods and are recorded as prepaid items in the financial statements.

i) Amortization

Revenue bond premiums and discounts are deferred and amortized on a straight-line basis over the term of the bonds, as this approximates the effective interest method. Unamortized amounts are presented as a (reduction) addition of the face amount of bonds payable.

The difference between the reacquisition price and net carrying amount of defeased bonds is amortized on the straight-line method over the shorter of the maturity of the new debt or the defeased debt and is recorded as deferred inflows/outflows of resources on the statement of net position.

j) Revenue Recognition

Fees and other services consist of parking fees, landing fees, and container handling fees. Revenues from parking fees and container handling fees are recognized at the time the service is provided. Landing fees are recognized as part of operating revenue when airline related facilities are utilized and are principally based on the landed weight of the aircraft. The scheduled airline fee structure is determined and approved annually by the Board and is based on full cost recovery pursuant to an arrangement between the Authority and the respective airlines.

Rental and concession fees are generated from airlines, rental car companies, and other commercial tenants. Rental revenue on leases is recognized over the term of the associated lease. Concession revenue is recognized partially based on self-reported concession revenue by the tenants and partially based on minimum rental rates. Unearned revenue consists primarily of amounts received in advance for future rents or other services. These amounts are recognized as revenue as they are earned over the applicable period.

Rates and charges are set annually based on the budgeted operating costs and actual capital costs. A true-up calculation is performed for landing fees, terminal rents, and baggage fees at year-end based on the actual results. In the event the actual costs are more than the budgeted amounts for the year, the Authority will recover additional rates and charges. In the event the actual costs are less than the budgeted amounts, the Authority will issue credits to the respective airlines.

The Authority presents its accounts receivable at the expected net realizable value. Accordingly, the Authority has recorded an allowance for doubtful accounts against its accounts receivable of $5.2 million and $4.4 million at June 30, 2019 and 2018, respectively.

k) Passenger Facility Charges

In 1993, the Authority received initial approval from the Federal Aviation Administration ("FAA") to impose a $3.00 PFC on all outbound tickets purchased at Logan Airport. PFCs collected by the Authority can be used for capital projects determined by the FAA to be eligible in accordance with the Aviation Safety and Capacity Expansion Act of 1990. Effective October 1, 2005, the Authority received approval from the FAA to increase the PFC collection to $4.50. All PFC's collected by the Authority are presently deposited under the PFC Depositary Agreement with The Bank of New York Mellon, as PFC Custodian.

Through June 30, 2019, the Authority had cumulative PFC cash collections of $1,288.5 million, including interest thereon.

As part of the Final Agency Decision issued by the FAA in 2011, the Authority was authorized, but not required, to use up to $14.4 million per year in PFCs to pay approximately one-third of the debt service on the Terminal A Special Facility bonds. The Authority chose to make this use of PFC revenue in order to offset the increase in Terminal A rates and charges that would have resulted from the scheduled increase in Terminal A debt service associated with the beginning of principal payments on January 1, 2012 for the Terminal A bonds. This use of PFCs will maintain the rate consistency across all terminals and facilitate the Authority's ability to assign carriers to Terminal A. For additional information on Terminal A Special Facility bonds, see Note 5a.

At June 30, 2019, the Authority's collection authorization and total use approval is $1.81 billion.

Revenues derived from the collection of PFCs are recognized on the accrual basis, based on the month the charges were levied and collected by the airlines. Due to their restricted use, PFCs are categorized as non-operating revenues. The Authority recognized $84.8 million and $81.0 million in PFC revenue for the fiscal years ended June 30, 2019 and 2018, respectively.

l) Customer Facility Charges

Effective December 1, 2008, the Board established a CFC of $4.00 per day for rental cars which originated out of Logan Airport. Effective December 1, 2009, this charge was increased to $6.00 per day. The proceeds of the CFC are being used to finance the Rental Car Center (the "RCC") and associated bus purchases. Revenues derived from the collection of CFCs are recognized on the accrual basis, based on the month the charges were levied and collected by the rental car companies. Due to their restricted use, CFCs are categorized as non-operating revenues. Pursuant to the CFC Trust Agreement, the Authority issued two series of Special Facilities Revenue Bonds in June 2011 (the "Series 2011 Bonds"). The Series 2011 Bonds were issued for the purpose of providing funds sufficient, together with other available funds of the Authority, to finance the development and construction of the RCC and related improvements at Logan Airport, fund certain deposits to the Debt Service Reserve Fund and the Supplemental Reserve Fund, and pay certain costs of issuance of the Series 2011 Bonds. The Series 2011 Bonds and any additional bonds that may be issued under the CFC Trust Agreement on parity with the Series 2011 Bonds are secured by CFC Pledged Revenues and by Contingent Rent, if any, payable by the rental car companies and other funds. The Series 2011 Bonds are not secured by any other revenues of the Authority.

The Authority recognized $33.5 million and $33.0 million in CFC revenue for the fiscal years ended June 30, 2019 and 2018, respectively.

As of June 30, 2019 and 2018, $190.8 million and $194.6 million of CFC bonds were outstanding, respectively.

m) Capital Contributions

The Authority receives capital contributions from various federal agencies and the Commonwealth in support of specific operational programs and its Capital Program. Grant revenues are recognized as related expenditures are incurred and all eligibility requirements are met. Grants for capital asset acquisition, facility development, runway/ airfield rehabilitation and long-term planning are reported as capital contributions. Capital contributions are reported in the Statement of Revenues, Expenses and Changes in Net Position after non-operating revenues and expenses and their use is restricted. In fiscal years 2019 and 2018, the Authority recognized $28.1 million and $25.4 million of capital contributions, respectively. The 2019 and the 2018 capital contributions were generated primarily from reimbursements under the FAA AIP grant program and the Nationally Significant Freight and Highway Project Program - Fastlane.

n) *Compensated Absences*

The Authority accrues for vacation and sick pay liabilities when they are earned by the employee. The liability for vested vacation and sick pay is reflected in the accompanying statements of net position as compensated absences. The current portion of compensated absences at June 30, 2019 and 2018 was $1.3 million and $1.3 million, respectively. The table below presents the Authority's compensated absences activity at June 30, 2019 and 2018 and for the years then ended (in thousands):

		2019	2018
Liability balance, beginning of year	$	18,893	19,308
Vacation and sick pay earned during the year		16,440	16,471
Vacation and sick pay used during the year		(17,416)	(16,886)
Liability balance, end of year	$	17,917	18,893

o) *Pensions*

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 Massachusetts Port Authority Employees Retirement System (the "Plan") and additions to/deductions from Plan's fiduciary net position have been determined on the same basis as they are reported by the Plan. 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. For additional information on Pension Plan, see Note 6.

p) *Postemployment Benefits Other Than Pensions (OPEB)*

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the Massachusetts Port Authority Retiree Benefits Trust (the "Trust") and additions to/deductions from Trust's fiduciary net position have been determined on the same basis as they are reported by the Trust. For this purpose, the Trust recognizes benefit payments when due and payable in accordance with the benefit terms. Investments are reported at fair value. For additional information on OPEB, see Note 7.

q) *Use of Estimates*

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenditures during the reporting period. Actual results could differ from those estimates.

r) *New Accounting Pronouncements*

In January 2017, GASB issued Statement No. 84, *Fiduciary Activities*, (“GASB No. 84”). This Statement establishes criteria for identifying fiduciary activities of all state and local governments. The focus of the criteria generally is on (1) whether a government is controlling the assets of the fiduciary activity and (2) the beneficiaries with whom a fiduciary relationship exists. Separate criteria are included to identify fiduciary component units and post employment benefit arrangements that are fiduciary activities.

An activity meeting the criteria should be reported in a fiduciary fund in the basic financial statements. Governments with activities meeting the criteria should present a statement of fiduciary net position and a statement of changes in fiduciary net position. An exception to that requirement is provided for a business-type activity that normally expects to hold custodial assets for three months or less.

This Statement describes four fiduciary funds that should be reported, if applicable: (1) pension (and other employee benefit) trust funds, (2) investment trust funds, (3) private-purpose trust funds, and (4) custodial funds. Custodial funds generally should report fiduciary activities that are not held in a trust or equivalent arrangement that meets specific criteria.

A fiduciary component unit, when reported in the fiduciary fund financial statements of a primary government, should combine its information with its component units that are fiduciary component units and aggregate that combined information with the primary government’s fiduciary funds. This Statement also provides for recognition of a liability to the beneficiaries in a fiduciary fund when an event has occurred that compels the government to disburse fiduciary resources. Events that compel a government to disburse fiduciary resources occur when a demand for the resources has been made or when no further action, approval, or condition is required to be taken or met by the beneficiary to release the assets. The requirements of this Statement are effective for financial statements for periods beginning after December 15, 2018.

The Authority is currently evaluating the impact of the implementation of GASB No. 84 on its financial statements.

In June 2017, GASB issued Statement No. 87, *Leases*, (“GASB No. 87”).The objective of this Statement is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. This Statement increases the usefulness of governments’ financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information about governments' leasing activities.

The requirements of this Statement are effective for financial statements for periods beginning after December 15, 2019.

The Authority is currently evaluating the impact of the implementation of GASB No. 87 on its financial statements.

In April 2018, GASB issued Statement No. 88, *Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements*, ("GASB No. 88") The primary objective of this Statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt.

This Statement defines debt for purposes of disclosure in notes to financial statements as a liability that arises from a contractual obligation to pay cash (or other assets that may be used in lieu of cash) in one or more payments to settle an amount that is fixed at the date the contractual obligation is established.

This Statement requires that additional essential information related to debt be disclosed in notes to financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences, significant termination events with finance-related consequences, and significant subjective acceleration clauses.

For notes to financial statements related to debt, this Statement also requires that existing and additional information be provided for direct borrowings and direct placements of debt separately from other debt.

The requirements of this Statement are effective for reporting periods beginning after June 15, 2018.

The Authority adopted this Statement as of July 1, 2018 and there was no significant impact on its financial statements.

In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred Before The End Of A Construction Period*, ("GASB No. 89") The objectives of this Statement are (1) to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and (2) to simplify accounting for interest cost incurred before the end of a construction period. This Statement establishes accounting requirements for interest cost incurred before the end of a construction period. Such interest cost includes all interest that previously was accounted for in accordance with the requirements of paragraphs 5–22 of Statement No. 62, *Codification of Accounting and*

Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements, which are superseded by this Statement. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund.

This Statement also reiterates that in financial statements prepared using the current financial resources measurement focus, interest cost incurred before the end of a construction period should be recognized as an expenditure on a basis consistent with governmental fund accounting principles.

The requirements of this Statement are effective for reporting periods beginning after December 15, 2019.

The Authority is currently evaluating the impact of the implementation of GASB No. 89 on its financial statements.

In September 2018, GASB issued Statement No. 90, *Majority Equity Interests – an amendment of GASB Statements No. 14 and No. 61* ("GASB No. 90"). The primary objectives of this Statement are to improve the consistency and comparability of government's majority equity interest in legally separate organizations and to improve the relevance of financial statement information for certain component units.

The requirements of this Statement are effective for reporting periods beginning after December 15, 2018.

The Authority is currently evaluating the impact of the implementation of GASB No. 90 on its financial statements.

In May 2019, GASB issued Statement No. 91, *Conduit Debt Obligations* ("GASB No. 91"). The primary objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures.

The requirements of this Statement are effective for reporting periods beginning after December 15, 2020.

The Authority is currently evaluating the impact of the implementation of GASB No. 91 on its financial statements.

2. Reconciliation between increase in net position as calculated under GAAP and net revenues as calculated under accounting practices prescribed by the 1978 Trust Agreement

Presented below are the calculations of the net revenues of the Authority under the 1978 Trust Agreement. Net revenue calculated based on the 1978 Trust Agreement is used in determining the Authority's compliance with the debt service coverage ratio (in thousands).

	2019	2018
Increase in Net Position per GAAP	$ 211,836	$ 156,191
Additions:		
Depreciation and amortization	288,344	262,162
Interest expense	76,010	67,490
Payments in lieu of taxes	21,331	20,408
Other operating expenses	3,076	10,398
Terminal A bonds - debt service contribution	7,494	12,232
OPEB expenses, net	165	4,480
Pension expense	9,126	(4,576)
Less:		
Passenger facility charges	(84,824)	(81,016)
Customer facility charges	(33,517)	(33,003)
Self insurance expenses	(140)	(61)
Capital grant revenue	(28,143)	(25,384)
Net decrease (increase) in the fair value of investments	(6,989)	4,354
Loss (gain) on sale of equipment	(203)	(182)
Settlement of claims	(1,469)	(2,019)
Other (revenues) expenses	(2,129)	(1,654)
Other non-operating revenues	(18,112)	(1,169)
Investment income	(8,126)	(6,293)
Net Revenue per the 1978 Trust Agreement	$ 433,730	$ 382,358

Total net revenues, as defined by the 1978 Trust Agreement, pledged for the repayment of bonds issued under the 1978 Trust Agreement were $433.7 million and $382.4 million for the years ended June 30, 2019 and 2018, respectively.

3. Deposits and Investments

The Authority's investments are made in accordance with the provisions of the 1978 Trust Agreement, the PFC Depositary Agreement and the CFC Trust Agreement along with the investment policy adopted by the Board (the "Investment Policy"). The goals of the Investment Policy are, in order of importance, to preserve capital, to provide liquidity and to generate interest income.

As of June 30, 2019 and 2018, all investments were held on behalf of the Authority by the Trustee, the PFC Custodian, the CFC Trustee or custodians in the Authority's name. The 1978 Trust Agreement, the PFC Depositary Agreement and the CFC Trust Agreement require that securities collateralizing repurchase agreements must continuously have a fair value at least equal to the cost of the agreement plus accrued interest.

The Authority's structured investments are in the form of a guaranteed investment contract ("GIC") and are fully collateralized. These investments provide for scheduled principal payments equaling the interest rate previously agreed to between the Authority and the provider of the guaranteed investment contract.

The total accumulated unrealized gain (loss) due to the changes in fair value of investments related to investments with maturities in excess of one year was a gain of approximately $1.3 million as of June 30, 2019 and a loss of approximately $5.7 million as of June 30, 2018.

The following summarizes the Authority's cash and cash equivalents and investments by type held at June 30, 2019 and 2018 (in thousands):

2019	Credit Rating (1)		Cost		Fair Value	Effective Duration
Massachusetts Municipal Depository Trust (6)	Unrated	$	163,716	$	163,716	0.003
Federal Home Loan Bank	AA+ / Aaa		55,458		55,490	0.696
Federally Deposit Insurance Corporation	Unrated (2)		1,002		1,002	0.003
Federal Home Loan Mortgage Corp.	AA+ / Aaa		93,503		93,512	1.240
Federal National Mortgage Association	AA+ / Aaa		46,352		46,255	0.458
Federal Farm Credit	AA+ / Aaa		7,014		7,036	0.680
Guaranteed Investment Contracts (GIC) (6)	AA+ / A1 (4)		46,652		46,652	9.039
Cash Deposit	Unrated		1,729		1,729	0.003
Certificates of Deposit	AAA / Aaa (3)		27,215		27,215	0.603
Commercial Paper	A-1/ P-1 (5)		296,585		296,585	0.283
NOW Account Deposit	Unrated		55,311		55,311	0.003
Supranational	AAA / Aaa (5)		35,225		35,504	2.700
Government Fund-Morgan Stanley / Wells Fargo	AAA / Aaa (5)		23,211		23,211	0.003
Municipal Bond	AAA/ Aa1		126,793		127,346	1.437
Money Market Funds	Unrated		3,339		3,339	0.004
Insured Cash Sweep	Unrated (2)		43,036		43,036	0.003
Treasury Notes	AA+ / Aaa		2,608		2,603	0.167
Corporate Bonds	AA- / Aa2 (7)		262,571		263,094	1.178
		$	1,291,320	$	1,292,636	

2018	Credit Rating (1)		Cost		Fair Value	Effective Duration
Massachusetts Municipal Depository Trust (6)	Unrated	$	181,981	$	181,981	0.003
Federal Home Loan Bank	AA+ / Aaa		49,006		48,753	0.989
Federally Deposit Insurance Corporation	Unrated (2)		1,001		1,001	0.003
Federal Home Loan Mortgage Corp.	AA+ / Aaa		41,799		41,452	0.946
Federal National Mortgage Association	AA+ / Aaa		81,155		80,395	1.350
Federal Farm Credit	AA+ / Aaa		18,055		17,990	0.791
Guaranteed Investment Contracts (GIC) (6)	AA+ / A1 (4)		44,818		44,818	10.229
Cash Deposit	Unrated		1,818		1,818	0.003
Certificates of Deposit	AAA / Aaa (3)		33,327		33,327	0.351
Commercial Paper	A-1/ P-1 (5)		423,452		423,452	0.271
Government Fund-Morgan Stanley / Wells Fargo	AAA / Aaa (5)		22,591		22,591	0.003
Municipal Bond	AAA/ Aa1		99,734		98,697	1.179
Money Market Funds	Unrated		2,231		2,231	0.003
Insured Cash Sweep	Unrated (2)		2,962		2,962	0.003
Treasury Notes	AA+ / Aaa		12,036		11,985	0.862
Corporate Bonds	AA- / Aa2 (7)		244,523		241,370	2.254
		$	1,260,489	$	1,254,823	

1. The ratings are from S&P or Moody's as of the fiscal year presented.
2. FDIC Insured Deposits Accounts.
3. Collateralized by Federal Agency Notes or Letter of Credit backed by each reserve.
4. Underlying rating of security held.
5. Credit quality of fund holdings.
6. MMDT and GIC are carried at cost, which approximates fair value in the tables.
7. The Authority owns a diverse portfolio of corporate bonds with S&P credit ratings ranging from A to AAA and Moody's credit ratings ranging from A1 to Aaa. These corporate bonds have an average credit rating of AA- / Aa2.

The table below presents the Authority's cash and cash equivalents and investments based on maturity date (in thousands):

	2019		2018	
	Cost	Fair Value	Cost	Fair Value
Securities maturing in 1 year or more	$ 493,558	$ 495,349	$ 398,566	$ 393,681
Securities maturing in less than 1 year	507,418	506,943	649,339	648,558
Cash and cash equivalents	290,344	290,344	212,584	212,584
	$ 1,291,320	$ 1,292,636	$ 1,260,489	$ 1,254,823

a) Credit Risk

Credit risk is the risk that the Authority will be negatively impacted due to the default of the security issuer or investment counterparty.

The Authority's 1978 Trust Agreement, PFC Depositary Agreement and CFC Trust Agreement each stipulate that, in addition to U.S. Treasury and government agency obligations, only certain highly rated securities are eligible investments, including bonds or obligations of any state or political subdivision thereof, rated in the two highest rating categories without regard to gradations within rating categories, by both Moody's (AAA, Aa1, Aa2 and Aa3) and S&P (AAA, AA+, AA, and AA-); commercial paper of a U.S. corporation, finance company or money market funds rated in the highest rating category, without regard to gradations within categories, by both Moody's and S&P; and investment contracts with banks whose long-term unsecured debt rating is in one of the two highest rating categories by both Moody's and S&P. In addition, U.S. dollar denominated corporate bonds, notes or other debt obligations issued or guaranteed by a domestic or foreign corporation, financial institution, non-profit or other entity rated in one of the three highest rating categories, without regard to gradations within such categories by Moody's and S&P.

b) 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. Bank deposits in excess of the insured amount are uninsured and uncollateralized.

The Authority maintains depository accounts with Bank of America, N.A., Wells Fargo Bank, N.A., TD Bank, N.A. and The Bank of New York Mellon, the PFC Custodian. The Authority maintains a payroll disbursement, lockbox and collection accounts (for other than PFCs) with Bank of America, N.A. None of these accounts are collateralized.

The Authority's cash on deposits in the banks noted above at June 30, 2019 and 2018 was $1.7 million and $1.8 million, respectively, and of these amounts, $250.0 thousand and

$294.0 thousand was insured in each year, and no amount was collateralized at June 30, 2019 or 2018.

c) Custodial Credit Risk – Investments

Custodial credit risk is the risk that, in the event of a failure of the counterparty, the Authority would not be able to recover the value of its investments or collateral securities that were in the possession of an outside party. Investment securities are exposed to custodial credit risk if they are uninsured or not registered in the name of the Authority and are held by either the counterparty or, the counterparty's trust department or agent, but not in the Authority's name.

The Authority is authorized by the 1978 Trust Agreement, the PFC Depositary Agreement, the CFC Trust Agreement and the Investment Policy to invest in obligations of the U.S. Treasury, including obligations of its agencies and instrumentalities, bonds and notes of public agencies or municipalities, bank time deposits, guaranteed investment contracts, money market accounts, commercial paper of a U.S. corporation or finance company and corporate bonds. All investments are held by a third party in the Authority's name. These investments are recorded at fair value.

Additionally, the Authority is authorized to invest in the Massachusetts Municipal Depository Trust ("MMDT"), a pooled money market like investment fund managed by the Commonwealth of Massachusetts, established under the General Laws, Chapter 29, Section 38A. MMDT investments are carried at amortized cost, which approximates fair value which is the same as the value of the pool. The Authority can purchase and sell its investments at any time without penalty.

The following guaranteed investment contracts were in force as of June 30, 2019 and 2018, respectively; they are uncollateralized and recorded at cost:

Investment Agreement Provider	Rate	Maturity	2019	2018
Trinity Plus Funding Company	4.36%	January 2, 2031	$ 20,717	$ 19,843
GE Funding Capital Markets	3.81%	December 31, 2030	25,935	24,975
Total			$ 46,652	$ 44,818

d) Concentration of Credit Risk – Investments

Concentration of credit risk is assumed to arise when the amount of investments that the Authority has with any one issuer exceeds 5% of the total value of the Authority's investments. The Authority consults with its Investment Advisor to select Commercial Paper Issuers with strong credit ratings. The book values of portions of the Authority-wide portfolio, excluding investments issued by MMDT, the FDIC, or U.S. Government guaranteed obligations, that exceed 5% of the portfolio are as follows (in thousands):

Issuer:	2019 % of Portfolio	2018 % of Portfolio
Commercial Paper	22.97%	33.59%
Corporate Bonds	20.33%	19.40%
Municipal Bond	9.82%	7.91%
Federal Home Loan Mortgage Corp.	7.24%	3.32%
Federal National Mortgage Association	3.59%	6.44%

Commercial Paper Issuer	2019	2018
Bank of Tokyo	$ 64,369	$ 61,482
BNP Paribas	9,886	29,767
Natixis	59,318	10,456
Dexia	-	61,264
General Electric	-	40,876
JP Morgan Chase	60,643	61,530
Credit Agricole	46,682	61,563
Rabobank	14,987	3,961
Toyota Motor Corporation	24,710	30,858
ING Funding	15,990	61,695
Total	$ 296,585	$ 423,452

e) Credit Ratings – Investments

The 1978 Trust Agreement, the PFC Depositary Agreement, the CFC Trust Agreement and the Investment Policy generally limit the Authority in the types of investments it can purchase to the two highest rating categories without regard to gradations within the rating categories by both Moody's (Aaa, Aa1, Aa2, and Aa3) and S&P (AAA, AA+, AA, and AA-) and in corporate bonds rated in one of the three highest rating categories without regard to gradations within such categories by Moody's and S&P.

Investments in bank certificates of deposits were fully collateralized. Also, the Authority invested in MMDT, managed by the State Treasury, which is not rated.

f) Interest Rate Risk – Investments

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Authority has set targets for the preferred maturity structure of the investments held in each fund and account, and also sets targets each quarter for the effective duration for each fund that reflect the need for liquidity and the expected tradeoffs between yield and term for each different fund and account. It is the Authority's practice to hold investments until maturity in order to insulate the Authority's investment earnings from interest rate risk. The Authority mitigates interest rate risk by managing the weighted average maturity of each portfolio type to best meet its liquidity needs.

g) *Cash, Cash Equivalents and Investments by Fund*

The following summarizes cash and investments, at cost and fair value, as of June 30, by the various funds and accounts established by the Authority for debt covenant requirements and other purposes. In the following table, the fair value of MMDT and GIC approximate their costs (in thousands):

	2019		2018	
1978 Trust	**Cost**	**Fair Value**	**Cost**	**Fair Value**
Improvement and Extension Fund	$ 336,235	$ 336,218	$ 306,833	$ 304,378
Capital Budget Account	123,243	123,242	135,774	135,774
Debt Service Reserve Funds	138,421	138,883	113,714	112,827
Debt Service Funds	89,781	89,781	83,226	83,226
Maintenance Reserve Fund	224,431	225,021	208,620	207,405
Operating/Revenue Fund	76,605	76,605	71,063	71,063
Subordinated Debt Funds	49,053	49,053	47,218	47,218
Self-Insurance Account	33,262	33,283	32,047	31,689
2016 B Project Fund	-	-	17,143	17,143
2017 B Project Fund	9,079	9,079	63,063	63,063
2018 B Project Fund	4,675	4,675	-	-
Other Funds	45,997	45,997	49,777	49,777
PFC Depositary Agreement				
Other PFC Funds	47,816	47,865	38,600	38,453
2011 CFC Trust				
Debt Service Reserve Funds	28,074	28,087	28,023	27,821
CFC Maintenance Reserve Fund	3,553	3,568	2,587	2,585
Debt Service Funds	9,619	9,619	9,519	9,519
Other CFC Funds	71,476	71,660	53,282	52,882
Total	$ 1,291,320	$ 1,292,636	$ 1,260,489	$ 1,254,823

h) *Fair Value Measurement*

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is a market-based measurement, not an entity-specific measurement. For some assets and liabilities, observable market transactions or market information might be available; for others, it might not be available. However, the objective of a fair value measurement in both cases is the same—that is, to determine the price at which an orderly transaction to sell the asset or to transfer the liability would take place between market participants at the measurement date under current market conditions. Fair value is an exit price at the measurement date from the perspective of a market participant that controls the asset or is obligated for the liability.

The fair value hierarchy categorizes the inputs to valuation techniques used to measure fair value into three levels. Level 1 inputs are quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date. Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for an asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs for an asset or liability. The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest priority to Level 3 inputs.

The following tables show the fair value and the fair value measurements for our cash and cash equivalents and investments:

Cash, Cash equivalents and Investments Measured at Fair Value (in thousands)

As of June 30, 2019	Fair Value	Level 1	Level 2	Level 3
Federal Home Loan Bank	$ 55,490	$ -	$ 55,490	$ -
Federally Insured Cash Account	1,002	1,002	-	-
Federal Home Loan Mortgage Corp.	93,512	-	93,512	-
Federal National Mortgage Association	46,255	-	46,255	-
Federal Farm Credit	7,036	-	7,036	-
Cash Deposit	1,729	1,729	-	-
Certificates of Deposit	27,215	27,215	-	-
Commercial Paper	296,585	-	296,585	-
NOW Account Deposit	55,311	55,311	-	-
Supranational	35,504	35,504	-	-
Government Fund-Morgan Stanley / Wells Fargo	23,211	23,211	-	-
Municipal Bond	127,346	-	127,346	-
Money Market Funds	3,339	3,339	-	-
Insured Cash Sweep	43,036	43,036	-	-
Treasury Notes	2,603	-	2,603	-
Corporate Bonds	263,094	-	263,094	-
Total Cash, Cash equivalents and Investments Measured at Fair Value	$ 1,082,268	$ 190,347	$ 891,921	$ -

Cash, Cash equivalents and Investments Measured at Fair Value (in thousands)

As of June 30, 2018	Fair Value	Level 1	Level 2	Level 3
Federal Home Loan Bank	$ 48,753	$ -	$ 48,753	$ -
Federally Insured Cash Account	1,001	1,001	-	-
Federal Home Loan Mortgage Corp.	41,452	-	41,452	-
Federal National Mortgage Association	80,395	-	80,395	-
Federal Farm Credit	17,990	-	17,990	-
Cash Deposit	1,818	1,818	-	-
Certificates of Deposit	33,327	33,327	-	-
Commercial Paper	423,452	-	423,452	-
Government Fund-Morgan Stanley / Wells Fargo	22,591	22,591	-	-
Municipal Bond	98,697	-	98,697	-
Money Market Funds	2,231	2,231	-	-
Insured Cash Sweep	2,962	2,962	-	-
Treasury Notes	11,985	-	11,985	-
Corporate Bonds	241,370	-	241,370	-
Total Cash, Cash equivalents and Investments Measured at Fair Value	$ 1,028,024	$ 63,930	$ 964,094	$ -

Cash and Money Market Funds

As of June 30, 2019 and 2018, the Authority held positions in various cash and money market funds and the fair values of those funds were $190.3 million and $63.9 million, respectively. The fair values of the cash and money market funds are valued at the daily closing price as reported by the fund (Level 1).

Federal Agency Notes

As of June 30, 2019 and 2018, the Authority held positions in federal agency notes and the fair values were $202.3 million and $188.6 million, respectively. The fair values of the federal agency notes are based on a market approach using quoted prices by a third party, documented trade history in the security, and pricing models maximizing the use of observable inputs determined by investment managers (Level 2).

Commercial Paper Notes

As of June 30, 2019 and 2018, the Authority held positions in commercial paper notes and the fair values were $296.6 million and $423.5 million, respectively. The fair values of the commercial paper notes are based on a market approach using matrix pricing determined by investment managers (Level 2).

Municipal Bonds

As of June 30, 2019 and 2018, the Authority held positions in municipal bonds and the fair values were $127.3 million and $98.7 million, respectively. The fair values of the Municipal Bonds are based on a market approach using quoted prices by a third party, documented trade history in the security, and pricing models maximizing the use of observable inputs determined by investment managers (Level 2).

Treasury Notes

As of June 30, 2019 and 2018, the Authority held positions in Treasury Notes and the fair values were $2.6 million and $12.0 million, respectively. The fair values of the Treasury Notes are based on a market approach using quoted prices by a third party, documented trade history in the security, and pricing models maximizing the use of observable inputs determined by investment managers (Level 2).

Corporate Bonds

As of June 30, 2019 and 2018, the Authority held positions in corporate bonds and the fair values were $263.1 million and $241.4 million. The fair values of the corporate bonds are based on a market approach valued either by using pricing models maximizing the use of observable inputs for similar securities or valued by the investment manager (Level 2).

4. Capital Assets

Capital assets consisted of the following at June 30, 2019 and 2018 (in thousands):

	June 30, 2018	Additions and Transfers In	Deletions and Transfers Out	June 30, 2019
Capital assets not being depreciated				
Land	$ 230,600	$ —	$ —	$ 230,600
Construction in progress	192,782	797,292	729,186	260,888
Total capital assets not being depreciated	423,382	797,292	729,186	491,488
Capital assets being depreciated				
Buildings	3,564,259	611,969	—	4,176,228
Runway and other paving	948,048	41,998	—	990,046
Roadway	767,054	919	—	767,973
Machinery and equipment	676,895	74,173	1,324	749,744
Air rights	185,131	127	—	185,258
Parking rights	46,261	—	—	46,261
Total capital assets being depreciated	6,187,648	729,186	1,324	6,915,510
Less accumulated depreciation:				
Buildings	1,836,530	148,756	—	1,985,286
Runway and other paving	558,966	44,451	—	603,417
Roadway	421,173	30,215	—	451,388
Machinery and equipment	418,832	57,126	1,324	474,634
Air rights	132,988	6,255	—	139,243
Parking rights	26,214	1,542	—	27,756
Total accumulated depreciation	3,394,703	288,345	1,324	3,681,724
Total capital assets being depreciated, net	2,792,945	440,841	—	3,233,786
Capital assets, net	$ 3,216,327	$ 1,238,133	$ 729,186	$ 3,725,274

Depreciation and amortization for fiscal year 2019 and 2018 was $288.3 million and $262.2 million, respectively.

	June 30, 2017	Additions and Transfers In	Deletions and Transfers Out	June 30, 2018
Capital assets not being depreciated				
Land	$ 230,593	$ 7	$ —	$ 230,600
Construction in progress	149,730	337,320	294,268	192,782
Total capital assets not being depreciated	380,323	337,327	294,268	423,382
Capital assets being depreciated				
Buildings	3,440,430	128,337	4,508	3,564,259
Runway and other paving	878,224	69,824	—	948,048
Roadway	718,290	48,775	11	767,054
Machinery and equipment	630,754	47,098	957	676,895
Air rights	184,905	226	—	185,131
Parking rights	46,261	—	—	46,261
Total capital assets being depreciated	5,898,864	294,260	5,476	6,187,648
Less accumulated depreciation:				
Buildings	1,712,773	126,929	3,172	1,836,530
Runway and other paving	514,072	44,894	—	558,966
Roadway	390,451	30,728	6	421,173
Machinery and equipment	368,448	51,334	950	418,832
Air rights	126,277	6,711	—	132,988
Parking rights	24,673	1,541	—	26,214
Total accumulated depreciation	3,136,694	262,137	4,128	3,394,703
Total capital assets being depreciated, net	2,762,170	32,123	1,348	2,792,945
Capital assets, net	$ 3,142,493	$ 369,450	$ 295,616	$ 3,216,327

Capital assets (excluding construction in progress) at June 30 comprised the following (in thousands):

	2019	2018
Facilities completed by operation:		
Airports	$ 6,419,146	$ 5,752,753
Port	726,964	665,495
Capital assets (excluding construction in progress)	$ 7,146,110	$ 6,418,248

5. Bonds and Notes Payable

Long-term debt at June 30, 2019 consisted of the following and represents maturities on the Authority's fiscal year basis (in thousands):

	June 30, 2018	Additions	Reductions	June 30, 2019	Due within one year
Revenue Bonds:					
Senior Debt-1978 Trust Agreement:					
2008, Series C, 4.60% to 4.70%, issued July 9, 2008 due 2020 to 2021	$ 7,830	$ —	$ 5,275	$ 2,555	$ 1,250
2010, Series A, 4.00% to 5.00%, issued August 5, 2010 due 2017 to 2041	88,025	—	2,220	85,805	2,305
2010, Series B, 3.00% to 5.00%, issued August 5, 2010 due 2020 to 2041	126,310	—	1,920	124,390	8,815
2010, Series C, 4.00% to 5.00%, issued August 5, 2010 due 2017 to 2019	3,810	—	3,810	—	—
2012, Series A, 3.50% to 5.00%, issued July 11, 2012 due 2020 to 2043	90,330	—	1,560	88,770	1,615
2012, Series B, 3.00% to 5.00%, issued July 11, 2012 due 2020 to 2033	156,405	—	7,150	149,255	7,030
2014, Series A, 3.00% to 5.00%, issued July 17, 2014 due 2020 to 2045	44,630	—	845	43,785	875
2014, Series B, 3.50% to 5.00%, issued July 17, 2014 due 2020 to 2045	47,375	—	890	46,485	925
2014, Series C, 3.00% to 5.00%, issued July 17, 2014 due 2020 to 2036	136,840	—	7,400	129,440	5,010
2015, Series A, 5.00%, issued July 15, 2015 due 2020 to 2045	104,480	—	—	104,480	1,910
2015, Series B, 5.00%, issued July 15, 2015 due 2020 to 2045	67,005	—	—	67,005	1,225
2015, Series C, 2.12% to 2.83%, issued June 30, 2015 due 2026 to 2030	142,895	—	14,370	128,525	11,900
2016, Series A, 4.00% to 5.00%, issued July 20, 2016 due 2020 to 2038	49,680	—	1,320	48,360	1,300
2016, Series B, 4.00% to 5.00%, issued July 20, 2016 due 2043 and 2046	180,285	—	—	180,285	—
2017, Series A, 5.00%, issued July 19, 2017 due 2044 and 2047	169,500	—	5,565	163,935	6,095
2019, Series A, 3.00% to 5.00%, issued February 13, 2019 due 2020 and 2041	—	315,240	—	315,240	3,310
Subtotal Senior Debt	1,415,400	315,240	52,325	1,678,315	53,565

	June 30, 2018	Additions	Reductions	June 30, 2019	Due within one year
Subordinated debt- 1978 Trust Agreement:					
2000, Series A,B & C, 6.45%, issued December 29, 2000 due 2031	40,000	—	—	40,000	—
2001, Series A,B & C, 6.45%, issued January 2, 2001 due 2031	34,000	—	—	34,000	—
Subtotal Subordinate Debt	74,000	—	—	74,000	—
Senior Debt - CFC Trust Agreement:					
2011, Series A, 5.125%, issued June 15, 2011 due 2038 to 2042	58,030	—	—	58,030	—
2011, Series B, 4.85% to 6.352%, issued June 15, 2011 due 2017 to 2038	136,545	—	3,780	132,765	3,960
Subtotal CFC Senior Debt	194,575	—	3,780	190,795	3,960
Total Bonds Payable	1,683,975	315,240	56,105	1,943,110	57,525
Less unamortized amounts:					
Bond premium (discount), net	151,341	49,506	7,757	193,090	9,276
Total Bonds Payable, net	$ 1,835,316	$ 364,746	$ 63,862	$ 2,136,200	$ 66,801

The following summarizes the Authority's revenue bonds activity at June 30 (in thousands):

	June 30, 2018	Additions	Reductions	June 30, 2019	Due within one year
Senior Debt-1978 Trust Agreement:	$ 1,415,400	$ 315,240	$ 52,325	$ 1,678,315	$ 53,565
Subordinated Debt- 1978 Trust Agreement	74,000	—	—	74,000	—
Senior Debt - CFC Trust Agreement:	194,575	—	3,780	190,795	3,960
	$ 1,683,975	$ 315,240	$ 56,105	$ 1,943,110	$ 57,525

	June 30, 2017	Additions	Reductions	June 30, 2018	Due within one year
Senior Debt-1978 Trust Agreement:	$ 1,393,650	$ 169,500	$ 147,750	$ 1,415,400	$ 52,325
Subordinated Debt- 1978 Trust Agreement	74,000	—	—	74,000	—
Senior Debt - PFC Trust Agreement:	52,910	—	52,910	—	—
Senior Debt - CFC Trust Agreement:	198,195	—	3,620	194,575	3,780
	$ 1,718,755	$ 169,500	$ 204,280	$ 1,683,975	$ 56,105

Debt service requirements on revenue bonds (1978 Trust and CFC Trust) outstanding at June 30, 2019 are as follows (in thousands):

	Principal	Interest	Total
Year ending June 30:			
2020	$ 57,525	$ 85,017	$ 142,542
2021	65,735	92,420	158,155
2022	67,330	89,710	157,040
2023	70,630	86,740	157,370
2024	71,640	83,618	155,258
2025 – 2029	383,565	367,225	750,790
2030 – 2034	428,105	265,142	693,247
2035 – 2039	338,450	162,386	500,836
2040 – 2044	314,255	76,030	390,285
2045 – 2048	145,875	12,252	158,127
Total	$ 1,943,110	$ 1,320,540	$ 3,263,650

a) Senior Debt - 1978 Trust Agreement

On February 13, 2019, the Authority issued $315.2 million of Massachusetts Port Authority Revenue Bonds in one series. The Series 2019 A Bonds were issued in the principal amount of $315.2 million with an original issue premium of approximately $49.5 million and interest rates ranging from 3.0% to 5.0%. The 2019 A Bonds were issued to currently refund all of the Terminal A outstanding Special Facilities Revenue Bonds (Delta Air Lines, Inc. Project), Series 2001 A (AMT), Special Facilities Revenue Bonds (Delta Air Lines, Inc. Project), Series 2001 B (Auction Rate Securities) and Special Facilities Revenue Bonds (Delta Air Lines, Inc. Project), Series 2001 C (Auction Rate Securities) (collectively, the “Terminal A Bonds”), previously disclosed as conduit debt. The Authority expects to achieve significant interest rate savings compared to rates on the Terminal A Bonds.

On July 19, 2017, the Authority issued $169.5 million of Massachusetts Port Authority Revenue Bonds in one series. The Series 2017 A Bonds were issued in the principal amount of $169.5 million with an original issue premium of approximately $27.2 million and an interest rate of 5.0%. The 2017 A Bonds were issued, in part, to refund all of the currently outstanding Series 2007 C Revenue Refunding Bonds and all of the currently outstanding variable rate Series 2010 D Multi-Modal Revenue Refunding Bonds and resulted in a net present value savings of $2.8 million.

Additionally, the Authority used approximately $91.0 million of the proceeds of the 2017 A Bonds to finance a portion of the Authority’s FY18-22 Capital Program. Due to the “private activity” nature of the construction projects, these bonds were sold as AMT bonds.

The Authority, through its 1978 Trust Agreement, has covenanted to maintain a debt service coverage ratio of not less than 1.25. Debt service coverage is calculated based on a formula set forth in the 1978 Trust Agreement. Historically, the Authority has maintained a debt service coverage ratio higher than its Trust Agreement requirement to maintain its investment grade bond ratings. As of June 30, 2019 and 2018, the Authority's debt service coverage under the 1978 Trust Agreement was 3.66 and 3.43, respectively.

b) Subordinate Debt - 1978 Trust Agreement

Subordinate debt is payable solely from funds on deposit in the Improvement and Extension Fund and is not subject to the pledge of the 1978 Trust Agreement or the CFC Trust Agreement. The Authority invested $12.0 million in January 2001 which at maturity will provide for the $74.0 million principal payments of the subordinate debt at their respective maturities on December 29, 2030 and January 2, 2031. As of June 30, 2019, the value of the two GICs was approximately $46.7 million as compared to $44.8 million as of June 30, 2018.

c) Senior Debt - CFC Trust Agreement

The Authority's outstanding CFC debt continues to be backed by a pledge of the $6.00 CFC collections. The Authority earned CFC Revenues, as defined in the CFC Trust Agreement, of approximately $33.5 million and $33.0 million during fiscal years 2019 and 2018, respectively. The CFC Trust Agreement requires that the Authority maintain a debt service coverage ratio of at least 1.3. As of June 30, 2019 and 2018, the CFC debt service coverage ratio was 2.86 and 2.65, respectively.

d) Subordinate Debt – Direct Placement

On November 20, 2018, the Authority entered into a direct purchase agreement with Bank of America, NA ("BAML") for sale of up to $107.5 million in aggregate principal amount of the Subordinated Obligations, Series 2018 A (AMT), (the "2018 Subordinated Obligations"). The 2018 Subordinated Obligations are issued as a "draw-down loan" to provide financing for capital projects at the Authority's Port properties. The principal of the 2018 Subordinated Obligations is expected to be paid from funds provided pursuant to a Memorandum of Understanding (the "MOU") between the Authority and the Commonwealth to provide grant funds in the amount of $107.5 million, which equals 50% of the expected construction costs of the new Berth 10 and the purchase of three new ship to shore cranes at Conley Terminal. The 2018 Subordinated Obligations will bear interest at variable rates with a final maturity on July 1, 2028. The 2018 Subordinated Obligations are subject to mandatory tender on July 1, 2023 (the "Tender Date"). If not repaid in full on the Tender Date, the remaining outstanding principal amount of the 2018 Subordinated Obligations must be repaid over a three year term in equal semi-annual principal installments, plus interest. Although the Authority expects to repay the principal of the 2018 Subordinated Obligations in full on or before July 1, 2022 from the Commonwealth's payments under the MOU, the 2018 Subordinated Obligations are secured by the moneys on deposit in the Improvement and Extension Fund available for such purpose and by a pledge of the Authority's Revenues, subordinate to the pledge securing bonds issued under the 1978 Trust

Agreement. As of June 30, 2019, the outstanding principal balance of the 2018 Subordinated Obligations was $40.0 million.

The following summarizes the Authority's direct placement bond activity at June 30 (in thousands):

	June 30, 2018	Additions	Reductions	June 30, 2019	Due within one year
Subordinated debt- 1978 Trust Agreement:					
2018, Series A, variable rate, issued November 20, 2018 due 2023	$ —	$ 40,000	$ —	$ 40,000	$ —
Total	$ —	$ 40,000	$ —	$ 40,000	$ —

Debt service requirements on direct placement bonds outstanding at June 30, 2019 are as follows (in thousands):

	Principal	Interest	Total
Year ending June 30:			
2020	$ —	$ 1,000	$ 1,000
2021	—	1,000	1,000
2022	—	1,000	1,000
2023	—	1,000	1,000
2024	40,000	—	40,000
Total	$ 40,000	$ 4,000	$ 44,000

e) Special Facility Bonds

To provide for the construction and improvement of various facilities at Logan Airport, the Authority has one outstanding series of special facilities revenue bonds as of June 30, 2019. The Authority's special facilities revenue bonds are special limited obligations of the Authority, and are payable and secured solely from and by certain revenues of a separate trustee. The Authority's special facilities revenue bonds do not constitute a debt or pledge of the full faith and credit of the Authority, or the Commonwealth of Massachusetts or any subdivision thereof and, accordingly, have not been reflected in the accompanying financial statements. As of June 30, 2019 and 2018, the aggregate principal amount of the Authority's special facilities revenue bonds outstanding was approximately $83.8 million and $464.4 million, respectively. The Authority has no obligation for $83.8 million of Special

Facility Bonds related to BOSFUEL Corporation, a Delaware non-stock membership corporation (BOSFUEL), the members of which are certain air carriers serving the Airport. The Authority leases to BOSFUEL all of the on Airport jet fuel storage and distribution system owned by the Authority that provides jet fuel to the terminals and jet fuel uses at the Airport.

At June 30, 2018, approximately \$378.0 million of the Authority's outstanding special facility bonds were related to the Terminal A Bonds, which were paid off by the Authority in February 2019 with the issuance of the Authority's Revenue Bonds, Series 2019 A (see Note 5a).

f) Commercial Notes Payable

The Authority's commercial notes payable as of June 30, 2019 and 2018 were as follows (in thousands):

		2019		2018
Commercial paper notes	\$	142,000	\$	109,000
Commercial paper notes issued		—		64,000
Principal paid on commercial paper notes		(38,000)		(31,000)
Commercial paper notes	\$	104,000	\$	142,000

Commercial notes payable have been issued under the terms of the 1978 Trust Agreement and are backed by the proceeds of the Improvement and Extension Fund or anticipated bond funds. The allowable maximum principal amount outstanding at any time, in the aggregate principal amount, cannot exceed the lesser of 10% of the Authority's outstanding long-term debt or \$150.0 million, and is backed by a Letter of Credit Agreement with the TD Bank N.A. expiring in June 2022.

The \$104.0 million and \$142.0 million of the commercial notes payable as of June 30, 2019 and 2018, respectively, have been used to fund PFC eligible projects; therefore the Authority anticipates that PFC revenues will be the source to pay such redemptions. The blended interest rate on the Series 2012 A Notes was 2.170% and 1.485% during fiscal years 2019 and 2018, respectively. The blended interest rate on the Series 2012 B Notes was 2.179% and 1.599% during fiscal years 2019 and 2018, respectively. The Authority's commercial notes payable mature in July, August and September of 2019.

During fiscal year 2019 and fiscal year 2018, the Authority did not have any interest rate swaps or other interest rate hedging arrangements.

g) Arbitrage – Rebate Liability

The United States Treasury has issued regulations on calculating the rebate due to the United States Government on arbitrage liability and determining compliance with the arbitrage rebate provisions of the Tax Reform Act of 1986. Arbitrage liability arises when the Authority temporarily invests the proceeds of tax exempt debt in securities with higher yields. The Authority has no estimated liability as of June 30, 2019 and 2018, respectively.

6. Pension Plan

a) Plan Description

The Massachusetts Port Authority Employees' Retirement System (the Plan) is a single employer plan established on July 18, 1978, effective January 1, 1979, by enactment of Chapter 487 (an amendment to Chapter 32) of the General Laws of The Commonwealth of Massachusetts to provide retirement benefits for substantially all employees of the Authority, and incidental benefits for their surviving spouses, beneficiaries and contingent annuitants. Prior to this enactment, Authority employees were members of the Commonwealth of Massachusetts Contributory Retirement System and the funding of the pension liability was on a "pay-as-you-go" method. Pursuant to this enactment, the employees' then present rights and benefits were transferred to the new retirement system. The Plan is a contributory defined benefit plan to which the Authority and its employees contribute such amounts as are necessary to provide assets sufficient to meet benefits to be paid to plan participants. The Plan is administered by the Massachusetts Port Authority Employees' Retirement System Board (the Board).

b) Benefits provided

Benefits are paid by the Plan from plan assets available for plan benefits. Plan participants are entitled at normal retirement age to benefit payments based upon length of service and earnings levels. Vesting occurs after 10 years of service.

Benefits to participants who retired prior to January 1, 1979 are paid by the Massachusetts State Board of Retirement. The Massachusetts State Board of Retirement is reimbursed for all such benefits paid after December 31, 1978 as these benefits represent obligations of the Plan.

Under Chapter 32, Section 3(8) (c), of the General Laws of The Commonwealth of Massachusetts (Chapter 32), the Plan is reimbursed for benefits paid to participants entitled to receive benefits for previous participation in other Massachusetts Chapter 32 plans. The Plan is also obligated to pay a proportionate share of benefits to participants entitled to receive benefits for subsequent participation in other Massachusetts Chapter 32 plans.

Also under Chapter 32, for members leaving the Authority's employment to work for other Massachusetts governmental units, the Plan transfers their accumulated account balances and creditable service to the retirement system of the new employer. Other such retirement systems are in turn required to make comparable transfers to the Plan for employees coming to work for the Authority.

Optional payment methods may be elected, including the contingent annuitant method, which provides for reduced payments during the life of the plan participant and continued payments to the participant's beneficiary after the death of the participant.

At January 1, 2019 and 2018, the Plan's membership consisted of:

	2019	2018
Retirees and beneficiaries receiving benefits	826	779
Terminated employees entitled to benefits but not yet receiving them	66	72
Current members:		
Active	1,288	1,268
Inactive	142	136
Total membership	2,322	2,255

c) Contributions required and contributions made

Contributions are made by the Authority based on amounts required to be funded as determined by annual actuarial valuations and are designed to fund the Plan on a level cost basis, as a percentage of pay, over the average remaining working lifetime of the active participants and to fund operating costs of the Plan. For the years ended June 30, 2019 and 2018, the Authority was required and did contribute to the Plan $13.0 million and $13.4 million, respectively. The Authority's annual contribution is made in July of each fiscal year therefore eliminating any deferred outflows related to the timing of contributions. The Authority bears the risk that plan assets might decline due to fluctuations in the fair value of the Plan's investments and contributions by the Authority will increase as part of its annual assessment.

Employees who became members prior to January 1, 1975 contribute 5% of their regular compensation through payroll deductions. Employees whose membership commenced on or after January 1, 1975 but prior to January 1, 1984 contribute 7%. Those employees whose membership began on or after January 1, 1984 but prior to July 1, 1996 contribute 8%. Employees hired after July 1, 1996 contribute 9% of their regular compensation. Employees who are hired after December 31, 1978 contribute an additional 2% of regular compensation over $30,000. These contributions accumulate and, subject to certain restrictions set forth in Chapter 32, are refundable to employees upon termination of employment by the Authority or payable to another retirement system should the employee transfer to another government unit covered by Chapter 32 of the General Laws of The Commonwealth of Massachusetts.

Contributions totaling $24.6 million ($13.0 million employer and $11.6 million employee) and $24.6 million ($13.4 million employer and $11.2 million employee) were recognized by the Plan for plan years 2018 and 2017, respectively.

d) Investment valuation

Investments are reported at fair value. Securities traded on a national or international securities exchange are valued at the last reported sales price on the last business day of the plan year; investments traded on a national securities exchange for which no sale was reported on that date and investments in common and preferred stocks traded in over-the-counter markets are valued at the mean of the last reported bid and asked prices, or the last reported bid price. Mutual funds and commingled funds, including real estate and alternative investments, are valued based on net asset or unit value at year-end.

e) Pension plan fiduciary net position

Detailed information about the Plan's fiduciary net position is available in a separately issued report. The report may be obtained by writing to the Massachusetts Port Authority Employees' Retirement System, One Harborside Drive, Suite 200S, East Boston, MA 02128-2909 or please see the Authority's website, www.massport.com.

f) Net Pension Liability

The components of the net pension liability of the System as of December 31, 2018 and 2017, is as follows (in thousands):

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balance at December 31, 2016	$ 651,928	$ 563,606	$ 88,322
Service cost	16,419	—	16,419
Interest	47,341	—	47,341
Changes between expected and actual experience	(1,474)	—	(1,474)
Contributions – employer	—	13,362	(13,362)
Contributions – employees	—	11,242	(11,242)
Net investment income	—	92,226	(92,226)
Benefits payments	(30,731)	(30,731)	—
Administrative expenses	—	(1,149)	1,149
Balance at December 31, 2017	$ 683,483	$ 648,556	$ 34,927
Service cost	16,774	—	16,774
Interest	49,569	—	49,569
Changes between expected and actual experience	749	—	749
Changes in benefit terms	(4,891)	—	(4,891)
Contributions – employer	—	13,043	(13,043)
Contributions – employees	—	11,559	(11,559)
Net investment (loss)	—	(31,212)	31,212
Benefits payments	(33,087)	(33,087)	—
Administrative expenses	—	(1,182)	1,182
Balance at December 31, 2018	$ 712,597	$ 607,677	$ 104,920

g) Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of January 1, 2018 and update procedures were used to roll forward the total pension liability forward from the valuation date (1/1/18) to the measurement date (12/31/18).

The following actuarial assumptions were applied to the periods included in the measurement for 2018 and 2017:

- *Inflation – 3.0%*
- *Salary increases – 4.5%*
- *Investment rate of return – 7.25%, net of plan investment expense*
- *Cost–of–living increases – 3.0% on a maximum base of $14,000*
- *Mortality*:
  - Healthy – RP 2000 Table (sex-distinct) projected with Scale BB and Generational Mortality. Post-retirement the RP 2000 healthy annuitant Table (sex-distinct) projected with Scale BB Generational Mortality.
  - Disabled-RP 2000 healthy annuitant Table (sex-distinct) and Generational Mortality set-forward 2 years. Mortality for accidental disability is assumed to be 50% from the same cause as the disability.
- Long-term Expected Rate of Return:

  The long-term expected rate of return on 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. The best estimates of geometric long-term expected real rates of return for each major asset class are summarized in the following table:

Asset class	Long-term expected real rate of return 2018*	2017*
Domestic equity	5.35 %	5.01 %
International equity	5.72	5.21
Fixed income	2.53	2.34
Real estate	5.20	5.20
Private equity	8.20	7.68

* amounts are net of inflation assumption of 2.32%

h) Changes in Benefit Terms

There were two changes to plan provisions resulting in a $4.9 million reduction of the net pension liability.

In 2018, due to a decision by the Contributory Retirement Appeal Board, vacation buybacks are currently not included in pensionable earnings when estimating the projected benefits payments, resulting in a reduction of the net pension liability totaling $7.9 million.

Also, as of July 1, 2017, the Cost of Living Adjustment (COLA) base was increased from $13,000 to $14,000, increasing the net pension liability by $3.0 million.

i) Discount Rate

The discount rate used to measure the total pension liability was 7.25% as of both December 31, 2018 and 2017. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected further benefit payments of current plan members. Therefore, the long-term expected rate of return on the plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

j) Sensitivity of the net pension liability to changes in the discount rate

The following presents the net pension liability of the Plan as of December 31, 2018 and 2017, calculated using the discount rate of 7.25% for 2018 and 2017, as well as what the net pension liability (asset) would be if it were calculated using a discount rate that is one-percentage point lower (6.25% for 2018 and 2017) or one-percentage point higher (8.25% for 2018 and 2017) than the current rate (in thousands):

Fiscal Year End		**1% decrease (6.250%)**		**Current discount rate (7.250%)**		**1% increase (8.250%)**
2019	$	188,970	$	104,920	$	35,765

Fiscal Year End		**1% decrease (6.250%)**		**Current discount rate (7.250%)**		**1% increase (8.250%)**
2018	$	116,065	$	34,927	$	(31,954)

k) *Pension expense and deferred outflows of resources and deferred inflows of resources related to pensions*

For the years ended June 30, 2019 and 2018, the Authority recognized pension expense of $22.2 million and $8.8 million, respectively.

At June 30, 2019 and 2018 the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources (in thousands):

		2019				**2018**		
		Deferred Outflows of Resources		Deferred Inflows of Resources		Deferred Outflows of Resources		Deferred Inflows of Resources
Differences between expected and actual experience	$	2,843	$	1,672	$	2,832	$	2,079
Differences arising from the recognition of changes in assumptions		10,894		879		14,195		1,079
Net difference between projected and actual earnings on pension Plan investments		38,158		—	$	—		25,390
Total	$	51,895	$	2,551	$	17,027	$	28,548

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows (in thousands):

Year ended June 30:		
2020	$	16,428
2021		7,764
2022		8,515
2023		16,553
2024		(3)
Thereafter		88

7. Other Postemployment Benefits (OPEB)

a) Plan Description

In addition to providing the pension benefits described in Note 6, the Authority provides post-employment health care and life insurance benefits ("OPEB") for retired employees. The OPEB Plan is a single-employer plan and offers retirees a choice of medical plans, as well as two dental plans, and basic life insurance. The benefit levels, employer contributions and future employee contributions are governed by the Authority and can be amended by the Authority.

In June 2009, the Board made changes to the plan benefits to be paid by the Authority for certain existing and future retirees. All current retired members of the Authority and all existing Authority employees who were vested as of October 1, 2009 would be eligible to have 100% of their premium cost subsidized. Employees not yet vested but employed by the Authority on October 1, 2009 would, upon retirement be eligible to receive 85% of the premium cost for benefits with the balance paid for by the retiree. For employees hired on or after October 1, 2009, the Board voted to implement a sliding scale subsidy for retiree health care premiums (ranging from 0%-85%) based on creditable service at retirement age (retirees must be age 60 or older to receive the subsidy), and whether or not the employee retired within sixty days after leaving the Authority. The Board also voted to eliminate retiree dental and life insurance coverage, as well as Medicare Part B premium subsidy for this group of employees.

In May 2016, the Board made changes to the plan benefits to be paid by the Authority for certain future retirees. Persons who commenced employment with the Authority during the period from October 1, 2009 through May 25, 2016, and who, as of the date such employment commenced, had accrued ten (10) years or more of creditable service pursuant to M.G.L.c. 32, would upon retirement, be eligible to receive 80% of the premium cost for those benefits with the balance paid for by the retiree; provided, however, that employees who retire with at least thirty (30) years of creditable service would be eligible to receive 85% of the premium cost of such benefits with the balance paid for by the retiree. For purposes of calculating the percentage of the subsidy (80% or

85%), years of creditable service shall be calculated at separation from employment with the Authority. The spouse and dependents of eligible retirees will qualify for the same premium subsidy and retiree health benefits as the retiree. Eligible retirees, but not their spouse or dependents, will also qualify for a 100% subsidy from the Authority for retiree basic life insurance.

b) Benefits provided

The medical plans are either HMOs, PPOs or indemnity plans, and some are designed to work with Medicare benefits, such as Medicare supplement or Medicare HMO plans. The basic life insurance provides a $5,000 death benefit to the retiree. Spouses and dependents are not eligible for this death benefit upon their death. To comply with the requirements of GASB No. 75, the Authority performed an actuarial valuation at January 1, 2018, and used June 30, 2018 as the measurement date. The Authority issues publicly available audited financial statements for the Trust. The report may be obtained by writing to the Massachusetts Port Authority, Attn: John P. Pranckevicius, CPA, Director of Administration and Finance and Secretary-Treasurer, One Harborside Drive, Suite 200S, East Boston, MA 02128-2909. Those statements are prepared with an "economic resources" measurement focus on the accrual basis of accounting in accordance with U.S generally accepted accounting principles. Employer contributions are recognized when the employer has made formal commitments to provide the contributions and benefits are recorded when due and payable in accordance with the terms of the Trust. Investments are reported at fair value. Mutual funds and commingled funds are valued based on fair value and alternative investments are valued based on net asset or unit value at year-end. The Trust did not own any individual securities and no long term contracts for contributions to the Trust existed at June 30, 2019 or 2018.

At June 30, 2019 and 2018, the Trust's membership consisted of:

	2019	2018
Active Employees		
Pre-Medicare (hired prior to 3/31/1986)	47	57
Post-Medicare (hired after 3/31/1986)	1,283	1,230
Total	1,330	1,287
Inactive Participants (Vested)	65	65
Retired, Disabled, Survivors and Beneficiaries	966	935
Total Membership	2,361	2,287

c) Contributions required and contributions made

Contributions are made by the Authority based on amounts to be funded as determined by annual actuarial valuations and are designed to fund the Trust on a level cost basis, and to fund operating costs of the Trust. For the years ended June 30, 2018 and 2017, the Authority contributed to the Trust $15.7 million and $14.3 million, respectively, and these amounts are recorded in the Statement of Net Position as a deferred outflow of resources as of June 30, 2018 and July 1, 2017, respectively. The Authority's annual contribution is made monthly throughout the fiscal year. The Authority bears the risk that trust assets might decline due to fluctuations in the fair value of the Trust's investments and contributions by the Authority will increase as part of its annual assessment.

d) OPEB Trust deposits and investments

i) OPEB Trust Investment Policy

The Trust's investments are made in accordance with the provisions of the Trust Investment Policy (the "Investment Policy") which was adopted on May 8, 2009 and amended on December 8, 2014 by the Retiree Benefits Trust Committee (the "Committee"). The goals of the Investment Policy are to invest for the sole purpose of funding the OPEB Plan obligation of the Authority in a prudent manner, and to conserve and enhance the value of the Trust assets through appreciation and income generation, while maintaining a moderate investment risk. In addition, the investment policy was developed to achieve a long-term return commensurate with contemporary economic conditions and equal to or exceed the investment objectives set forth in the investment policy, currently set at 7.25%.

The Trust has retained an investment consultant to work in a fiduciary capacity to ensure that strategic investment diversification is attained, to employ investment managers with expertise in their respective asset classes, and to closely monitor the implementation and performance of the respective investment strategies.

The Trust is currently invested in commingled funds which hold stocks (domestic and international) and fixed income securities and a REIT index fund. Additionally, the Trust invested in two private equity real estate funds. The exposure limits per the Trust Investment Policy are as follows:

			Asset Weightings (as of December 8, 2014)		
Asset Class	2018 Exposure	2017 Exposure	Minimum Exposure	Maximum Exposure	Target Allocation
Domestic equity	41.6%	39.8%	28%	48%	38.0%
Fixed income	27.6%	30.6%	17%	47%	32.0%
International equity	19.5%	20.0%	10%	30%	20.0%
Cash and cash equivalents	1.1%	0.2%	0%	20%	0.0%
Alternatives:			0%	15%	10.0%
REIT index fund	2.6%	2.8%			
Real estate private equity	7.6%	6.6%			
Total Alternatives	10.2%	9.4%			

The current investment philosophy represents a long-term perspective. When asset weightings fall outside the Investment Policy Range, the investment advisor shall advise the Committee on potential investment courses of action and the Committee may elect to rebalance the Trust asset mix.

The following summarizes the Trust's cash, cash equivalents and investments by type held at June 30, 2018 and 2017 (in thousands):

	Credit Rating		2018 Fair Value	Credit Rating		2017 Fair Value
Cash and Cash Equivalents						
MMDT	Unrated	$	1,967	Unrated	$	1,525
First American Government Fund	Unrated		252	Unrated		120
Total Cash and Cash Equivalents		$	2,219		$	1,645
Investments						
Vanguard Index Funds	Unrated	$	121,606	Unrated	$	107,429
Vanguard Total Bond Market Fund	AA		—	AA		18,946
Vanguard Intermediate Term Investment Grade Fund	A		8,176	A		9,558
Vanguard Short Term Bond Index Fund	n/a		—	AA		8,234
Aberdeen Emerging Markets Fund	Unrated		8,203	Unrated		7,958
Alliance Bernstein High Income	BBB		6,476	BBB		9,475
TCW Emerging Markets Income	BB		4,331	BB		4,624
PL Floating Rate Income Fund	B		5,704	B		5,487
Baird Core Plus Fund	A		15,769	n/a		—
Voya Intermediate Bond Fund	A		15,750	n/a		—
Real Estate Private Equity Funds	Unrated		15,550	Unrated		12,235
Total Investments		$	201,565		$	183,946

The following discusses the Trust's exposure to common deposit and investment risks related to custodial credit, credit, concentration of credit, interest rate and foreign currency risks as of June 30, 2018 and 2017.

ii) Custodial Credit Risk

Custodial credit risk is the risk that, in the event of a failure of a depository financial institution, the Trust's deposits may not be returned. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the Trust and are held by either the depository financial institution or the depository financial institution's trust department or agent but not in the Trust's name.

The Trust manages custodial credit risk by limiting its investments to highly rated institutions and or requiring high quality collateral be held by the Trustee in the name of the Trust. All investments are held by a third party in the Trust's name. These investments are recorded at fair value.

Additionally, the Trust is authorized to invest in the Massachusetts Municipal Depository Trust (MMDT), a pooled money market like investment fund managed by the

Commonwealth of Massachusetts, established under the General Laws, Chapter 29, Section 38A. MMDT investments are carried at amortized cost, which approximates fair value which is the same as the value of the pool. The Trust can purchase and sell its investments in this fund at any time without penalty.

iii) Credit Risk

Credit risk exists when there is a possibility the issuer or other counterparty to an investment may be unable to fulfill its obligations.

For the years ended June 30, 2018 and 2017, the Trust's fixed income investments totaled $56.2 million and $54.3 million, respectively. At June 30, 2018 and 2017, these investments were split between six commingled mutual funds. The investment policy limits fixed income securities of any one issuer to below 5% of the total bond portfolio at the time of purchase and this limitation does not apply to issues of the U.S. Treasury or other Federal Agencies. The diversification restrictions for individual stocks and fixed income securities purchased and held in the total portfolio shall not apply to similar investment instruments held in a commingled fund or an SEC registered mutual fund specifically approved by the Committee. The Trust invests primarily commingled funds and SEC registered mutual funds. The overall rating of the fixed income assets, as calculated by the Advisor, shall be investment grade, based on the rating of one Nationally Recognized Statistical Rating Organization. In cases where the yield spread adequately compensates for additional risk, investments classified at below investment grade can be purchased or held to maturity up to a maximum of 30% of the total market value of the fixed income securities of the Fund. The percentage of the fixed income portfolio below investment grade at June 30, 2018 and 2017 was 26.14% and 22.72%, respectively.

iv) Concentration of Credit Risk

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of the Trust's investment in a single issuer. Investments of Trust assets are diversified in accordance with the Investment Policy that defines rules for the funds, including having no stock holding or fixed income holding with a 5% or greater portfolio weighting (except U.S. Treasury or securities backed by the federal government), holding no more than 2% of the outstanding shares of an individual stock, and holding no more than 25% of the portfolio in any one industry. Trust assets were in compliance with the Investment Policy at June 30, 2018 and 2017, respectively.

v) Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. This risk is confined to the fixed income and cash portions of the portfolio and is managed within the portfolio using the effective duration methodology. This methodology is widely used in the management of fixed income portfolios in that it quantifies to a much greater degree the risk of interest rate changes. The weighted duration of the fixed income portfolio at June 30, 2018 and 2017 was 5.11 and 4.68 years, respectively.

The individual fund durations are as follows at June 30, 2018 and 2017, respectively:

	2018 Fair Value	Effective Duration	2017 Fair Value	Effective Duration
Fixed Income Investments				
Vanguard Total Bond Market Fund	$ —	n/a	$ 18,947	6.10
Vanguard Intermediate Term Investment Grade Fund	8,176	5.50	9,558	5.50
Vanguard Short Term Bond Index Fund	—	n/a	8,234	2.80
Alliance Bernstein High Income	6,476	4.77	9,475	4.18
TCW Emerging Markets Income	4,331	6.01	4,624	6.72
PL Floating Rate Income Fund	5,704	0.30	5,487	0.33
Baird Core Plus	15,769	5.79	—	n/a
Voya Intermediate Bond	15,750	5.85	—	n/a
Total Fixed Income Investments	$ 56,206		$ 56,325	

vi) Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. The Trust invests in funds that hold stocks in either emerging or developed markets outside of the United States that may have an impact on the fair value of the investments and thus contribute currency risk due to their international equity holdings.

vii) Rate of Return

As required per GASB Statement 74, the annual money weighted rate of return on trust investments, net of trust expenses was 7.32% and 11.88% for the years ended June 30, 2018 and 2017, respectively. The money weighted rate of return expresses investment performance net of investment expenses adjusted for the changing amounts actually invested. The Trust's annual rate of return, measured for financial performance purposes, was 7.8% and 12.1%, gross of fees, for fiscal years 2018 and 2017, respectively.

viii) Fair Value Measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is a market-based measurement, not an entity-specific measurement. For some assets and liabilities, observable market transactions or market information might be available; for others, it might not be available. However, the objective of a fair value measurement in both cases is the same—that is, to determine the price at which an orderly transaction to sell the asset or to transfer the liability would take place between market participants at the measurement date under current market conditions. Fair value is an exit price at the measurement date from the perspective of a market participant that controls the asset or is obligated for the liability.

The fair value hierarchy categorizes the inputs to valuation techniques used to measure fair value into three levels. Level 1 inputs are quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date. Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for an asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs for an asset or liability. The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest priority to Level 3 inputs.

The Trust has the following fair value measurements for investments at June 30, 2018 and 2017:

Investments Measured by Fair Value Level ($ 000)

As of June 30, 2018	Fair Value	Level 1	Level 2	Level 3
Investments				
Vanguard Index Funds	$ 121,606	$ 121,606	$ -	$ -
Baird Core Plus	15,769	15,769	-	-
Vanguard Intermediate Term Investment Grade Fund	8,176	8,176	-	-
Voya Internediate Bond	15,750	15,750	-	-
Aberdeen Emerging Markets Fund	8,203	8,203	-	-
AllianceBernstein High Income	6,476	6,476	-	-
TCW Emerging Markets Income	4,331	4,331	-	-
PI Floating Rate Income Fund	5,704	5,704	-	-
Total investments measured by fair value level	186,015	186,015	-	-
Investments measured at the net asset value (NAV)				
Real Estate Private Equity Funds:				
Boyd Watterson GSA Fund	6,062			
Equus Fund X	9,488			
Total investments measured at the NAV	15,550			
Total Investments	$ 201,565	$ 186,015	$ -	$ -

Investments Measured by Fair Value Level ($ 000)

As of June 30, 2017	Fair Value	Level 1	Level 2	Level 3
Investments				
Vanguard Index Funds	$ 107,429	$ 107,429	$ -	$ -
Vanguard Total Bond Market Fund	18,946	18,946	-	-
Vanguard Intermediate Term Investment Grade Fund	9,558	9,558	-	-
Vanguard Short Term Bond Index Fund	8,234	8,234	-	-
Aberdeen Emerging Markets Fund	7,958	7,958	-	-
AllianceBernstein High Income	9,475	9,475	-	-
TCW Emerging Markets Income	4,624	4,624	-	-
PI Floating Rate Income Fund	5,487	5,487	-	-
Total investments measured by fair value level	171,711	171,711	-	-
Investments Measured at the Net Asset Value (NAV)				
Real Estate Private Equity Funds:				
Boyd Watterson GSA Fund	5,592			
Equus Fund X	6,643			
Total investments measured at the NAV	12,235			
Total Investments	$ 183,946	$ 171,711	$ -	$ -

Comingled Mutual Funds

As of June 30, 2018 and 2017, the Authority held positions in several comingled mutual funds as noted above and the fair values were $186.0 million and $171.7 million, respectively. The fair values of the comingled mutual funds were valued using quoted market prices (Level 1).

The valuation method for investments measured at the net asset value (NAV) per share or its equivalent is presented in the following table:

	Investments Measured at NAV ($000)				
	2018	2017	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Real Estate Private Equity Funds					
Boyd Watterson GSA Fund (1)	$ 6,062	$ 5,592	—	Quarterly	60 days
Equus Fund X(2)	9,488	6,643	—	—	—
Total investments measured at the NAV	$ 15,550	$ 12,235			

1 This fund invests primarily in real estate leased to the U.S. federal government. The fair value of the investment has been determined using the NAV per share (or its equivalent) of the Fund's ownership interest in partners' capital. The Trust can withdraw from the fund with 60 days notice prior to a calendar quarter end and the minimum withdrawal of $250,000.

2 This fund invests in U.S. commercial real estate. The fair value of the investment has been determined using the NAV per share (or its equivalent) of the Fund's ownership interest in partners' capital. The Partnership agreement stipulates a partnership dissolution on a date five years after the end of the Investment Period; provided, however, that the General Partner may, in its sole discretion, extend the term for up to two additional one year periods.

e) Net OPEB Liability

The total OPEB liability at June 30, 2019 was determined by an actuarial valuation as of January 1, 2018 and update procedures were used to roll forward the total OPEB liability from the valuation date (1/1/18) to the measurement date (6/30/18). The total OPEB liability at June 30, 2018 was determined by an actuarial valuation as of January 1, 2017 and update procedures were used to roll backward the total OPEB liability from the valuation date (1/1/17) to the measurement date (6/30/17).

The components of the net OPEB liability of the Trust as of June 30, 2019 and 2018, is as follows (in thousands):

	Increase (Decrease)		
	Total OPEB Liability (a)	**Trust Fiduciary Net Position (b)**	**Net OPEB Liability (a) - (b)**
Balance at June 30, 2017	$ 312,819	$ 162,368	$ 150,451
Service cost	6,405	—	6,405
Interest	22,693	—	22,693
Contributions – employer	—	15,787	(15,787)
Contributions – employees	—	248	(248)
Net investment income	—	19,829	(19,829)
Benefits payments	(12,643)	(12,643)	—
Administrative expenses	—	(173)	173
Balance at June 30, 2018	$ 329,274	$ 185,416	$ 143,858
Service cost	6,692	—	6,692
Interest	23,870	—	23,870
Difference between expected and actual experience	(17,359)	—	(17,359)
Change in assumption	8,575	—	8,575
Contributions – employer	—	17,237	(17,237)
Contributions – employees	—	279	(279)
Net investment income	—	13,755	(13,755)
Benefits payments	(13,428)	(13,428)	—
Administrative expenses	—	(184)	184
Balance at June 30, 2019	$ 337,624	$ 203,075	$ 134,549

f) Actuarial Assumptions

The following actuarial assumptions were applied to the periods included in the measurement for 2018 and 2017:

- *Inflation – 3.0%*
- *Salary increases – 4.5%*
- *Investment rate of return – 7.25%, net of Trust investment expense*
- *Health care trend rates – Initial annual health care cost trend rate range from 1.7% to 9.0% which decrease to a long-term trend rate between 5.0% and 6.0% for all health care benefits after ten years. The initial annual dental cost trend rates range from 0.0% to 7.0% which decrease to a long-term trend rate between 5.0% and 6.0% for all dental benefits after 10 years.*
- *Mortality*:
  - Healthy – RP 2000 Table (sex-distinct) projected with Scale BB and Generational Mortality. Post-retirement the RP 2000 healthy annuitant Table (sex-distinct) projected with Scale BB Generational Mortality.
  - Disabled-RP 2000 healthy annuitant Table (sex-distinct) and Generational Mortality set-forward 2 years. Mortality for accidental disability is assumed to be 50% from the same cause as the disability.
- *Other information:*

  As of January 1, 2018, the scales used to convert the premiums to age weighted claim costs were updated and the effect of the "Cadillac Tax" on liabilities was recognized.

  As of January 1, 2016, employees hired after September 30, 2009 are not eligible for post-retirement medical insurance until age 60 with 10 year of service.

  As of January 1, 2013, the mortality assumption was changed to the RP2000 Table and the retirement, disability and withdrawal assumptions were changed based on an experience study.
- Long-term Expected Rate of Return:

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

The best estimates of arithmetic long-term expected real rates of return for each major asset class are summarized in the following table:

Asset class	Long-term expected real rate of return 2018*	2017*
Domestic equity		
Vanguard Total Stock Market Index	6.48 %	6.48 %
Fixed income		
Vanguard Total Bond Market Fund	3.13	3.13
Vanguard Short Term Bond Index Fund	3.13	3.13
Vanguard Intermediate Term Investment Grade	4.00	4.00
Alliance Bernstein High Income	4.75	4.75
PL Floating Rate Income Fund	2.89	2.89
TCW Emerging Markets Income	5.25	5.25
International equity		
Vanguard Total International Stock Index	6.65	6.65
Vanguard Developed Market Stock Index	6.65	6.65
Aberdeen Emerging Markets Fund	7.20	7.20
Cash and cash equivalents	0.76	0.75
Alternatives		
REIT index fund	4.72	4.62
Real estate private equity	6.43	6.28

* amounts are net of inflation assumption of 2.5 %

g) Discount Rate

The discount rate used to measure the total OPEB liability as of both June 30, 2019 and 2018 was 7.25%. The projection of cash flows used to determine the discount rate assumed that Trust member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the Trust's fiduciary net position was projected to be available to make all projected further benefit payments of current Trust members. Therefore, the long-term expected rate of return on the plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

h) *Sensitivity of the net OPEB liability to changes in the discount rate*

The following presents the net OPEB liability of the Authority as of June 30, 2019 and 2018, calculated using the discount rate of 7.25% for 2019 and 2018, as well as what the net OPEB liability (asset) would be if it were calculated using a discount rate that is one-percentage point lower (6.25% for 2019 and 2018) or one-percentage point higher (8.25% for 2019 and 2018) than the current rate (in thousands):

Fiscal Year End	1% decrease (6.250%)	Current discount rate (7.250%)	1% increase (8.250%)
2019	$ 180,667	$ 134,549	$ 96,719

Fiscal Year End	1% decrease (6.250%)	Current discount rate (7.250%)	1% increase (8.250%)
2018	$ 192,188	$ 143,858	$ 105,549

i) *Sensitivity of the Net OPEB Liability to Changes in Health Care Cost Rates*

The following presents the net OPEB liability of the Authority as of June 30, 2019 and 2018, calculated using healthcare cost trend rates of 9.0% decreasing to 5.0% as well as what the net OPEB liability (asset) would be if it were calculated using a health care cost trend rate that is one-percentage point lower or one-percentage point higher than the current rate:

Fiscal Year End	1% decrease (8.0% decreasing to 4.0%)	Healthcare Cost Trend rate (9.0% decreasing to 5.0%)	1% increase (10.0% decreasing to 6.0%)
2019	$ 93,499	$ 134,549	$ 186,885

Fiscal Year End	1% decrease (8.0% decreasing to 4.0%)	Healthcare Cost Trend rate (9.0% decreasing to 5.0%)	1% increase (10.0% decreasing to 6.0%)
2018	$ 100,533	$ 143,858	$ 199,282

j) *OPEB expense and deferred outflows of resources and deferred inflows of resources related to OPEB*

For the years ended June 30, 2019 and 2018, the Authority recognized OPEB expense of $18.6 million and $20.2 million, respectively.

At June 30, 2019 and 2018 the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources (in thousands):

	2019		2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 10,517	$ 14,761	$ 13,292	$ —
Changes in assumptions	7,291	—	—	—
Net difference between projected and actual earnings on OPEB investments	—	1,220	—	831
OPEB contribution subsequent to measurement date	18,398	—	15,682	—
Total	$ 36,206	$ 15,981	$ 28,974	$ 831

In accordance with GASB Statement No. 75, the Authority reported $18.4 million and $15.7 million as deferred outflows of resources related to the Authority's OPEB contribution subsequent to the measurement date and will be recognized as a reduction of the net OPEB liability in the years ended June 30, 2019 and 2018, respectively. Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows (in thousands):

Year ended June 30:	
2020	$ 1,678
2021	1,678
2022	(163)
2023	843
2024	(1,315)
Thereafter	(894)

8. Leases

a) Commitments

The Authority has commitments under various operating leases, which contain escalation clauses, as lessee. The following is a schedule by years of minimum rental payments under noncancelable operating leases as of June 30, 2019 (in thousands):

Years	Amount	Years	Amount
2020	$ 8,272	2040 – 2044	$ 5,129
2021	7,974	2045 – 2049	5,129
2022	7,854	2050 – 2054	4,979
2023	7,851	2055 – 2059	4,880
2024	2,564	2060 – 2064	4,880
2025 – 2029	6,052	2064 – 2069	4,880
2030 – 2034	5,086	2070 – 2074	651
2035 – 2039	5,076		
		Total	$ 81,257

Rent expense and other operating lease related payments were $7.9 million and $6.9 million for fiscal years 2019 and 2018, respectively.

b) Rental Income

The Authority leases a major portion of its Aviation and Port properties to various tenants. Many of these operating leases provide for periodic adjustments to rental rates, including certain provisions for contingent payments based on specified percentages of the tenant's gross revenue.

The following is a schedule by years of minimum future rental income on noncancelable operating leases as of June 30, 2019 (in thousands):

Years		Amount	Years		Amount
2020	$	93,109	2055 – 2059	$	61,840
2021		86,347	2060 – 2064		65,955
2022		77,650	2065 – 2069		67,074
2023		65,942	2070 – 2074		72,070
2024		48,444	2075 – 2079		73,364
2025 – 2029		178,282	2080 – 2084		77,320
2030 – 2034		99,335	2085 – 2089		66,691
2035 – 2039		91,879	2090 – 2094		71,973
2040 – 2044		94,869	2095 – 2099		52,632
2045 – 2049		73,217	2100 – 2104		2,601
2050 – 2054		61,085	2105 – 2107		1,050
			Total	$	1,582,729

Rental income and concession income, including contingent payments received under these provisions, were approximately $441.7 million and $386.2 million for the fiscal years 2019 and 2018, respectively.

9. Risk Management

The Authority, as mandated by the 1978 Trust Agreement, maintains a self insurance account for general liability and workers compensation within the Operating Fund. The self insurance accruals are determined based on insurance claim history and actuarial estimates needed to pay prior and current-year claims. The accrued liability was approximately $8.9 million and $8.1 million as of June 30, 2019 and 2018, respectively, and is included as a component of accrued expenses in the accompanying financial statements. This liability is fully funded as of June 30, 2019 and 2018.

Changes in the accrued liability accounts, related to self insurance, in fiscal year 2019, 2018 and 2017 were as follows (in thousands):

		2019		2018		2017
Liability balance, beginning of year	$	8,075	$	8,053	$	7,986
Provision to record estimated losses		3,972		3,538		3,308
Payments		(3,157)		(3,516)		(3,241)
Liability balance, end of year	$	8,890	$	8,075	$	8,053

As part of its normal operations, the Authority encounters the risk of accidental losses stemming from third party liability claims, property loss or damage, and job related injuries and illnesses. In managing these loss exposures, a combination of risk management measures is applied, including safety and loss prevention programs, emergency planning, contractual risk transfer, self insurance, and insurance.

In connection with the self insurance and insurance programs, the Authority retains part of the losses incurred and internally manages the self insured claims. The self insured retention currently includes: $1.0 million for worker's compensation per job related accident for Massport employees and International Longshoreman's Association Members; $1,000 per occurrence for automobile liability; aviation general liability and airport terrorism insurance; $0.25 million for airside incidents and for non-airside auto losses; $25 thousand for Comprehensive Marine Liability, Terminal Operator's Liability, Stevedore's liability; and $0.25 million for property losses per occurrence. Insurance is purchased above the self-insured amounts, subject to availability and the reasonableness of cost. Liabilities for self insured claims are 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 at year-end and are based on the historical cost of settling similar claims. The Authority records such liabilities as accrued expenses. The Authority from time to time is engaged in various matters of routine litigation. These matters include personal injury and property damage claims for which the Authority's liability is covered in whole or in part by insurance. The Authority does not expect that these matters will require any amounts to be paid which in the aggregate would materially affect the financial statements.

Settled claims resulting from the risks discussed above have not exceeded the amount of insurance coverage in force in any of the past three fiscal years. Further, insurance maintained in fiscal years 2019 and 2018 has not changed significantly from prior periods.

10. Payments in Lieu of Taxes

The Authority's Enabling Act and the 1978 Trust Agreement authorize and directs the Authority, subject to certain standards and limitations, to enter into agreements to make annual payments in lieu of taxes to the City of Boston and the Town of Winthrop (collectively, the "PILOT Agreements").

The PILOT Agreements provide that annual payments may not exceed the balance of revenues remaining after deposits to pay operating expenses, required deposits to the Interest and Sinking Fund and required deposits to the Maintenance Reserve Fund.

Pursuant to the terms of the amended payment–in-lieu-of-taxes agreement between the Authority and the City of Boston (the "Boston PILOT Agreement"), the Boston PILOT Agreement terminates on June 30, 2022; provided, however, that absent an annual election by either party to terminate the Boston PILOT Agreement, the term is subject to automatic one-year extensions of the term on each July 1. In November 2016, the City of Boston notified the Authority of its election to terminate the Boston PILOT Agreement on June 30, 2022, and the parties expect to commence negotiations on a successor agreement or an amendment to the existing agreement. The Boston PILOT Agreement provides for the Authority to pay an annual base amount (the "Base Amount") of $14.0 million, which, commencing in fiscal year 2007, increases annually by the annual percentage change in the consumer price index, provided that such increase shall be no less than 2% nor greater than 8% per year and a community portion (the "Community Portion").

Pursuant to the terms of the amended and restated payment-in-lieu-of-taxes agreement between the Authority and the Town of Winthrop (the "Winthrop PILOT Agreement"), the Winthrop PILOT Agreement expires June 30, 2025. The Winthrop PILOT Agreement was amended in November 2018, and pursuant thereto the Authority expects to make adjusted annual payments for the remainder of the term, commencing with a payment of $1.4 million in fiscal year 2019 and increasing annually to $2.0 million by fiscal year 2025, as well as an additional community portion.

PILOT expenses to the City of Boston for fiscal years 2019 and 2018 were $20.0 million and $19.0 million, respectively. PILOT expenses to the Town of Winthrop for fiscal years 2019 and 2018 were $1.4 million for each year.

11. Commitments

a) Contractual Obligations for Construction

The Authority enters into construction contracts with various construction and engineering companies. Construction contracts outstanding were approximately $600.9 million and $261.8 million as of June 30, 2019 and 2018, respectively.

b) Seaport Bond Bill

The Seaport Bond Bill was enacted in 1996 and among other things, provides for funding improvements to the Massachusetts rail transportation network allowing rail shipment of double stack cargo from Allston Yards in Boston to points west, which is anticipated to encourage expanded container shipments through the Port of Boston. The Seaport Bond Bill requires that the Authority provides up to fifty percent (50%) of the cost of improvements to the rail line from Framingham to the Allston Yard in Boston permitting double stack shipments. Expenditure of funds will not occur until the execution of a Master Agreement, as defined by the statute, between the Commonwealth and the participating railroads. The Authority believes that the likelihood that any such Master Agreement will be executed and Authority funds committed for double stack improvements within the next fiscal year is remote.

c) Boston Harbor Dredging Project

During fiscal year 2018, the Authority entered into an agreement with the Department of the Army and The Commonwealth of Massachusetts, Department of Transportation related to the Boston Harbor Deep Draft Improvement Project and the construction of the Dredged or excavated Material Facility at Boston Harbor, Massachusetts. This project includes the deepening and widening of the Broad Sound North Channel to 51 feet, the deepening and widening of the Main Ship Channel (MSC) and Reserve Channel Turning Basin to 47 feet. The non-federal share is split between the Authority and the Commonwealth. The project is expected to be completed in fiscal year 2022.

12. Litigation

The Authority is engaged in numerous matters of routine litigation. These matters include personal injury and property damage claims for which the Authority's liability is covered in whole or in part by insurance. Others include such matters as disputes with contractors, subcontractors, engineers and others arising out of construction and maintenance of the Authority's properties; disputes over leases and concessions; property, theft and damage claims arising from the Authority's operations, employment matters and workers compensation, as to which the Authority is self-insured. The Authority does not expect that these matters will require any amounts to be paid which, in the aggregate, will be material to the results of operations.

13. Pollution Remediation Obligation

The Authority is currently involved in six separate pollution remediation obligations that meet the requirements for accounting treatment under GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations* ("GASB No. 49"). These obligations are generally related to the removal and/or treatment of contaminated soil, groundwater and petroleum products associated with fuel storage and conveyance. GASB No. 49 dictates that for each obligating event, an estimate of the expected pollution remediation outlays is required to be accrued as a liability and expensed in the current period. Re-measurement of the liability is required when new information indicates increases or decreases in estimated outlays.

The estimated liability as of June 30, 2019 and 2018 is $3.2 million and $4.6 million, respectively, which represents the approximate amounts the Authority expects to pay for future remediation activities. The Authority paid approximately $1.9 million and $0.8 million in fiscal years 2019 and 2018, respectively. This estimate was generated using input and guidance from internal management and professional consultants, and represents a wide array of remediation activities ranging from onetime events to longer-term sustained monitoring activity. The Authority will continue to closely monitor each of these obligations, working toward regulatory closure, and will make any necessary adjustments to the potential liability as new information becomes available.

14. Interagency Agreements

a) Investment in Joint Venture

In May 1996, the Authority entered into an interagency agreement with the Massachusetts Highway Department ("MHD") and Massachusetts Bay Transportation Authority ("MBTA") for the construction of a Regional Transportation Center ("RTC") in Woburn, Massachusetts ("Interagency Agreement"). Under the terms of the Interagency Agreement, the Authority has paid one third of the costs of acquiring the site and constructing the RTC and will share in a like proportion in the profits and losses of the RTC. During fiscal years 2019 and 2018, the Authority recognized income of approximately $0.4 million and $0.3 million, respectively, representing its share of the earnings of the RTC.

b) Logan Airport Silver Line Transportation Agreement

In December 2005, the Authority entered into a ten year agreement with the MBTA to provide public transportation between South Station in Boston, Massachusetts and Logan Airport along a route called the Silver Line. Pursuant to this agreement, the Authority purchased eight buses at a cost of $13.3 million, and the MBTA agreed to operate and maintain the Authority's Silver Line buses for a cost of $2.0 million per year, paid in equal monthly installments. In August 2015, this agreement was extended for an additional five year period and modified to provide that the Authority would be responsible for paying the FAA approved rate of 76.06% of the costs to operate and maintain the Silver Line buses and 76.06% of the costs of the future rebuild of the Silver Line buses. During fiscal years 2019 and 2018, the estimated costs to operate and maintain the Silver Line buses was $2.69 million and $2.86 million, respectively, and the Authority also incurred expenses of $1.8 million to rebuild four Silver Line Buses in fiscal year 2018.

15. Subsequent Events

Bond Offering

On July 17, 2019, the Authority issued $455.0 million of Massachusetts Port Authority Revenue Bonds in two series. The Series 2019 B Revenue Bonds were issued in the principal amount of $157.7 million with a net original issue premium of approximately $26.8 million and interest rates ranging from 3.0% to 5.0%. The Series 2019 C Revenue Bonds were issued in the principal amount of $297.4 million with an original issue premium of approximately $62.4 million and interest rates ranging from 3.0% to 5.0%. The 2019 B and C Bonds were issued to finance a portion of the Authority's FY19-23 Capital Program. Due to the "private activity" nature of a portion of the construction projects, the Series 2019 C bonds were sold as AMT bonds.

On September 26, 2019, the Authority issued $143.7 million of Massachusetts Port Authority Special Facilities Revenue Bonds (BOSFUEL Project) in two series. The Series 2019 A Bonds were issued in the principal amount of $135.9 million with a net original issue premium of approximately $24.1 million and interest rates ranging from 4.0% to 5.0%. The Series 2019 B Special Facilities Bonds were issued as taxable bonds, in the principal amount of $7.9 million at par with interest rates ranging from 2.7% to 3.7%. The 2019 A and B Bonds will be used to enhance the Fuel Facilities at Logan Airport to ensure the ability to meet current and future demands. Due to the "private activity" nature of a portion of the construction projects, the Series 2019 A Special Facilities Bonds were sold as AMT bonds.

MASSACHUSETTS PORT AUTHORITY

Required Supplementary Information (Unaudited)

Schedule of Pension Contributions

June 30, 2019

(In thousands)

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Actuarially determined contribution	$ 13,043	$ 13,362	$ 13,552	$ 10,845	$ 11,146	$ 11,960	$ 9,594	$ 5,710	$ 4,924	$ 7,621
Actual contribution in relation to the actuarially determined contribution	13,043	13,362	13,552	10,845	11,146	11,960	9,594	5,710	4,924	7,621
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Covered payroll	$ 114,541	$ 110,173	$ 106,444	99,190	$ 94,340	$ 90,042	$ 87,476	$ 85,941	$ 89,950	$ 89,704
Contributions as a percentage of covered payroll	11.4%	12.1%	12.7%	10.9%	11.8%	13.3%	11.0%	6.6%	5.5%	8.5%

Notes to Schedule

Valuation date:	Actuarially determined contribution rates are calculated annually as of January 1, 18 months prior to the end of the fiscal year in which the contributions are reported. Contributions are made on July 1, of each year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Frozen entry age
Amortization method	20 Level dollar, closed
Remaining amortization period	Multiple bases with remaining periods from 8 to 20 years
Asset valuation method	Beginning in 2008, fair value of assets using a five year smoothing period. Prior to 2008, used four year asset smoothing perio
Inflation rate	3.0%
Salary increases	2013 valuation: 4.5%; 2009 valuation: 4.75; prior to 2009: 5.00%
Investment rate of return	2016 valuation 7.25%; 2015 valuation: 7.5%; 2012 valuation: 7.625%; 2010 valuation: 7.75%; 2009 valuation: 8.0%; prior to 2009: 7.75%
Retirement age	In the 2013 valuation, additional retirement assumptions were added for employees hired after April 1, 2012 and subject to pension reform and the assumption was changed due to an experience study. In the 2008 valuation the retirement assumption was extended to age 70 for Group 1 employees.
Disability and withdrawal	Changed in the 2013 valuation due to an experience study.
Mortality	In the 2013 valuation, mortality was changed to RP2000 projected generationally with scale BE In the 2012 valuation, mortality was changed to RP2000 projected 22 years using scale AA. In the 2009, 2010 and 2011 valuations mortality was changed to RP2000 projected nine, ten and eleven years, respectively, using scale AA.

Other information

As of January 1, 2016, employees hired after September 30, 2009 and not eligible for post-retirement medical insurance until age 60, retirement age begins at age 60 with 10 years of service.

As of January 1, 2013, the mortality assumption was changed to the RP2000 Generational Table and the retirement, disability and withdrawal assumptions were changed based on an experience study.

As of January 1, 2012, the mortality assumption was changed to the RP2000 Table projected forward 22 years with Scale AA, interest rate changed to 7.625% (from 7.75%) and salary rate to 4.50% (from 4.75%). Vacation buyback factor was increased from 1.00% to 1.25%.

As of January 1, 2011, the mortality assumption was changed to the RP2000 Table projected forward 11 years with Scale AA.

As of January 1, 2010, the mortality assumption was changed to the RP2000 Table projected forward 10 years with Scale AA, interest rate was changed to 7.75% (from 8.00%).

As of January 1, 2009, the mortality assumption was changed to the RP2000 Table projected forward 9 years with Scale AA, interest rate was changed to 8.00% (from 7.75%), salary rate was changed to 4.75% (from 5.00%), contribution timing was changed to the beginning of the fiscal year from monthly.

As of January 1, 2008, the retirement age assumption was extended to age 70 for Group 1 employees, disabled mortality changed to a 2 year set forward and the asset valuation method was changed to a 5 year smoothing.

MASSACHUSETTS PORT AUTHORITY

Required Supplementary Information (Unaudited)

Schedule of Changes in the Net Pension Liability and Related Ratios

June 30, 2019

(In thousands)

	2019	2018	2017	2016	2015	2014
TOTAL PENSION LIABILITY						
Service cost	$ 16,774	$ 16,419	$ 15,920	$ 14,875	$ 13,056	$ 12,516
Interest	49,569	47,341	44,962	41,160	40,956	38,660
Change in benefit terms	(4,891)	-	-	-	-	-
Differences between expected and actual experience	749	(1,474)	2,592	(1,395)	1,929	-
Change of assumptions	-	-	(1,479)	24,098	-	-
Benefit payments , including refunds of employee contributions	(33,087)	(30,731)	(28,604)	(26,106)	(24,357)	(22,708)
Net change in total pension liability	29,114	31,555	33,391	52,632	31,584	28,468
Total pension liability - beginning	683,483	651,928	618,537	565,905	534,321	505,853
Total pension liability - ending	$ 712,597	$ 683,483	$ 651,928	$ 618,537	$ 565,905	$ 534,321
PLAN FIDUCIARY NET POSITION						
Contributions - employer	$ 13,043	$ 13,362	$ 13,552	$ 10,845	$ 11,146	$ 11,960
Contributions - employee	11,559	11,242	10,660	9,948	9,628	9,112
Net Investment Income	(31,212)	92,226	42,565	(4,572)	32,062	65,818
Benefit payments , including refunds of employee contributions	(33,087)	(30,731)	(28,604)	(26,106)	(24,357)	(22,707)
Administrative expense	(1,182)	(1,149)	(1,189)	(1,189)	(1,417)	(957)
Net change in plan fiduciary net position	(40,879)	84,950	36,984	(11,074)	27,062	63,226
Plan fiduciary net position - beginning	648,556	563,606	526,622	537,696	510,634	447,408
Plan fiduciary net position - end	$ 607,677	$ 648,556	$ 563,606	$ 526,622	$ 537,696	$ 510,634
Massport net pension liability - ending	$ 104,920	$ 34,927	$ 88,322	$ 91,915	$ 28,209	$ 23,687
Plan fiduciary net position as a percentage of the total pension liability	85.3%	94.9%	86.5%	85.1%	95.0%	95.6%
Covered payroll	114,541	114,385	112,167	99,190	99,113	90,042
Massport's net pension liability as a percentage of covered payroll	91.6%	30.5%	78.7%	92.7%	28.5%	26.3%

This schedule is intended to present 10 years of data. Additional years will be presented when available.

Note to Schedule
This schedule is presented based on a measurement date that is 6 months in arrears.

Benefit changes - none

Changes in assumptions-Mortality table changes from Scale AA to BB in fiscal year 2017.

MASSACHUSETTS PORT AUTHORITY
Required Supplementary Information (Unaudited)
Schedule of OPEB Contributions

		2019	2018		2017		2016		2015
Actuarially determined contribution	$	15,725	15,177	$	18,084	$	14,390	$	13,187
Authority contribution		18,398	15,682		14,300		12,000		12,000
Contribution deficiency (excess)	$	(2,673)	(505)	$	3,784	$	2,390	$	1,187
Covered - employee payroll	$	140,995	135,585	$	131,477	$	119,153	$	117,277
Contributions as a % of covered employee payroll		13.0%	11.6%		10.9%		10.1%		10.2%

		2014	2013		2012		2011		2010
Actuarially determined contribution	$	14,738	14,006	$	18,444	$	17,229	$	18,345
Authority contribution		14,000	20,851		13,807		17,100		15,338
Contribution deficiency (excess)	$	738	(6,845)	$	4,637	$	129	$	3,007
Covered - employee payroll	$	110,167	102,487	$	98,201	$	99,457	$	97,980
Contributions as a % of covered employee payroll		12.7%	20.3%		14.1%		17.2%		15.7%

Methods and assumptions used to determine contribution rates:

Valuation date:

Actuarially determined contribution rates are calculated as of January 1, six months prior to the beginning of the fiscal year in which contributions are reported. The January 1, 2017 valuation established the rate for the fiscal year 2018 contribution and the January 1, 2018 valuation established the fiscal year 2019 contribution. The following assumptions were used for the periods included in the funding for 2019 and 2018:

Actuarial cost method: Contribution: Projected Unit Credit
Net OPEB Liability: Entry Age Normal

Amortization method: 30 year level, closed, 19 years remaining

Asset valuation method: Fair value

Inflation: 3.0%

Salary increases: 4.5%, including inflation 2013 forward
4.75%, including inflation 2009 to 2012

Investment rate of return: 7.25% annually, net of plan investment expenses for funded program 2016 forward
7.50% annually, net of plan investment expenses for funded program 2015
7.75% annually, net of plan investment expenses for funded program pre 2013
4.00% annually, net of plan investment expenses for unfunded program 2013 on
4.25% annually, net of plan investment expenses for unfunded program pre 2013

Health care trend rates Initial annual health care cost trend rate range of 2.7% to 9.0% which decreases to a long-term trend rate between 5.0% and 6.0% for all health care benefits after ten years. The initial annual dental cost trend rates range from 5.0% to 7.0% which decrease to a long term trend rate of 5.0% for all dental benefits after ten years.

Mortality: Actives - RP 2014 Table, (sex distinct), for Emplyees projected using Generational Mortality and scale MP - 2018.
Retirees - RP 2014 Table, (sex distinct), for Healthy Annuitantas projected using Generational Mortality and scale MP - 2018.
Disabled - RP 2014 Table, (sex distinct), for Healthy Annuitantas projected using Generational Mortality and scale MP - 2018. Set forward 2 years.

Notes to Schedule

Benefit changes - none

Changes in assumptions - Mortality table changes from RP2000 with Scale BB to RP 2014

Other information

As of January 1, 2017, the mortality assumption was changed to the RP 2000 Table with Scale AA to Scal BB.

As of January 1, 2016, employees hired after September 30, 2009 and not eligible for post-retirement medical insurance until age 60, retirement age begins at age 60 with 10 years of service

As of January 1, 2013, the mortality assumption was changed to the RP 2000 Generational Table and the retirement, disability and withdrawal assumptions were changed based on an experience study

As of January 1, 2012, the mortality assumption was changed to the RP 2000 Table projected forward 22 years with Scale AA.

As of January 1, 2011, the mortality assumption was changed to the RP 2000 Table projected forward 11 years with Scale AA.

As of January 1, 2010, the mortality assumption was changed to the RP 2000 Table projected forward 10 years with Scale AA.

As of January 1, 2009, the mortality assumption was changed to the RP 2000 Table projected forward 9 years with Scale AA.

MASSACHUSETTS PORT AUTHORITY
Required Supplementary Information (Unaudited)
Schedule of Changes in the Net OPEB Liability and Related Ratios
June 30, 2019
(in thousands)

	2019	2018	2017
Total OPEB liability:			
Service cost	$ 6,692	$ 6,405	$ 5,891
Interest	23,870	22,693	20,285
Differences between expected and actual experience	(17,359)	—	18,841
Change of assumptions	8,575	—	—
Benefits payments	(13,428)	(12,643)	(11,987)
Net change in total OPEB liability	8,350	16,455	33,030
Total OPEB liability – beginning	329,274	312,819	279,789
Total OPEB liability – ending (a)	$ 337,624	$ 329,274	$ 312,819
Trust fiduciary net position:			
Contributions – employer	17,237	15,787	13,340
Contributions – employees	279	248	209
Net investment income	13,755	19,829	2,348
Benefits payments	(13,428)	(12,643)	(11,987)
Administrative expenses	(184)	(173)	(172)
Net change in fiduciary net position	17,659	23,048	3,738
Trust fiduciary net position – beginning	185,416	162,368	158,630
Trust fiduciary net position – ending (b)	$ 203,075	$ 185,416	$ 162,368
Authority's net OPEB liability – end of year (a-b)	$ 134,549	$ 143,858	$ 150,451
Trust fiduciary net position as a percentage of the total OPEB liability	60.1%	56.3%	51.9%
Covered payroll	$ 135,585	$ 131,477	$ 119,153
Net OPEB liability as a percentage of covered payroll	100.8%	91.4%	79.2%

This schedule is intended to present 10 years of data. Additional years will be presented when available.

Notes to Schedule

This schedule is presented based on a measurement date that is 1 year in arrears.

Benefit changes - none

Changes in assumptions :

As of January 1, 2018, the scales used to convert the premiums to age weighted claim costs were updated and the effect of the “Cadillac Tax” on liabilities was recognized.

MASSACHUSETTS PORT AUTHORITY

Required Supplementary Information (Unaudited)

Schedule of OPEB Investment Returns

	2019	2018	2017	2016
Annual money-weighted rate of return, net of investment expense	7.64 %	7.32 %	11.88 %	1.53 %

Note: This schedule is intended to present 10 years of data. Additional years will be presented when available.

MASSACHUSETTS PORT AUTHORITY

Combining Schedule of Net Position

June 30, 2019

(In thousands)

	Authority Operations	PFC Program	CFC Program	Combined Totals
Current assets:				
Cash and cash equivalents	$ 74,191	$ —	$ —	$ 74,191
Investments	195,967	—	—	195,967
Restricted cash and cash equivalents	164,149	20,482	31,522	216,153
Restricted investments	262,304	12,716	35,956	310,976
Accounts receivable				
Trade, net	70,460	13,358	3,497	87,315
Grants	7,123	—	—	7,123
Total receivables, net	77,583	13,358	3,497	94,438
Prepaid expenses and other assets	10,354	—	57	10,411
Total current assets	784,548	46,556	71,032	902,136
Noncurrent assets:				
Investments	142,665	—	—	142,665
Restricted investments	292,560	14,668	45,456	352,684
Prepaid expenses and other assets, long-term	6,619	—	972	7,591
Investment in joint venture	3,495	—	—	3,495
Capital assets-not being depreciated	491,488	—	—	491,488
Capital assets-being depreciated-net	2,585,781	410,253	237,752	3,233,786
Total noncurrent assets	3,522,608	424,921	284,180	4,231,709
Total assets	4,307,156	471,477	355,212	5,133,845
Deferred outflows of resources				
Deferred loss on refunding of bonds	14,674	—	—	14,674
Deferred outflows of resources related to pensions	51,895	—	—	51,895
Deferred outflows of resources related to OPEB	36,206	—	—	36,206
Total deferred outflows of resources	102,775	—	—	102,775
Current liabilities:				
Accounts payable and accrued expenses	196,041	225	220	196,486
Compensated absences	1,299	—	—	1,299
Contract retainage	10,021	—	—	10,021
Current portion of long-term debt	62,892	—	3,909	66,801
Commercial notes payable	104,000	—	—	104,000
Accrued interest payable	39,945	—	5,572	45,517
Unearned revenues	9,597	—	—	9,597
Total current liabilities	423,795	225	9,701	433,721
Noncurrent liabilities				
Accrued expenses	9,533	—	405	9,938
Compensated absences	16,618	—	—	16,618
Net pension liability	104,920	—	—	104,920
Net OPEB liability	134,549	—	—	134,549
Contract retainage	7,494	—	—	7,494
Long-term notes payable,	40,000	—	—	40,000
Long-term debt, net	1,883,626	—	185,773	2,069,399
Unearned revenues	20,037	—	—	20,037
Total noncurrent liabilities	2,216,777	—	186,178	2,402,955
Total liabilities	2,640,572	225	195,879	2,836,676
Deferred inflows of resources				
Deferred gain on refunding of bonds	5,243	—	—	5,243
Deferred inflows of resources related to pensions	2,551	—	—	2,551
Deferred inflows of resources related to OPEB	15,981	—	—	15,981
Total deferred inflows of resources	23,775	—	—	23,775
Net investment in capital assets	1,007,430	410,253	72,126	1,489,809
Restricted for other purposes				
Bond funds	242,702	—	—	242,702
Project funds	267,656	—	—	267,656
Passenger facility charges	—	60,999	—	60,999
Customer facility charges	—	—	87,207	87,207
Other purposes	31,401	—	—	31,401
Total restricted	541,759	60,999	87,207	689,965
Unrestricted	196,395	—	—	196,395
Total net position	$ 1,745,584	$ 471,252	$ 159,333	$ 2,376,169

See accompanying independent auditors' report.

MASSACHUSETTS PORT AUTHORITY

Combining Schedule of Revenues, Expenses, and Changes in Net Position

Year ended June 30, 2019

(In thousands)

	Authority Operations	PFC Program	CFC Program	Combined Totals
Operating revenues:				
Aviation rentals	$ 267,055	$ —	$ —	$ 267,055
Aviation parking	182,135	—	—	182,135
Aviation shuttle bus	21,196	—	—	21,196
Aviation fees	153,194	—	—	153,194
Aviation concessions	130,801	—	—	130,801
Aviation operating grants and other	2,034	—	—	2,034
Maritime fees, rentals and other	102,774	—	—	102,774
Real estate fees, rents and other	46,334	—	—	46,334
Total operating revenues	905,523	—	—	905,523
Operating expenses:				
Aviation operations and maintenance	305,596	—	—	305,596
Maritime operations and maintenance	64,412	—	—	64,412
Real estate operations and maintenance	16,898	—	—	16,898
General and administrative	67,273	—	—	67,273
Payments in lieu of taxes	21,331	—	—	21,331
Pension and other post-employment benefits	40,740	—	—	40,740
Other	8,631	—	—	8,631
Total operating expenses before depreciation and amortization	524,881	—	—	524,881
Depreciation and amortization	225,056	48,959	14,329	288,344
Total operating expenses	749,937	48,959	14,329	813,225
Operating income (loss)	155,586	(48,959)	(14,329)	92,298
Nonoperating revenues and (expenses):				
Passenger facility charges	—	84,824	—	84,824
Customer facility charges	—	—	33,517	33,517
Investment income	26,235	1,246	2,304	29,785
Net increase/(decrease) in the fair value of investments	5,977	196	816	6,989
Other revenues	21,003	—	49	21,052
Settlement of claims	1,469	—	—	1,469
Terminal A debt service contribution	3,358	(10,852)	—	(7,494)
Other expenses	(2,749)	—	(191)	(2,940)
Gain on sale of equipment	203	—	—	203
Interest expense	(62,263)	(2,496)	(11,251)	(76,010)
Total nonoperating (expense) revenue, net	(6,767)	72,918	25,244	91,395
Increase in net position before capital contributions	148,819	23,959	10,915	183,693
Capital contributions	28,143	—	—	28,143
Increase in net position	176,962	23,959	10,915	211,836
Net position, beginning of year	1,568,622	447,293	148,418	2,164,333
Net position, end of year	$ 1,745,584	$ 471,252	$ 159,333	$ 2,376,169

See accompanying independent auditors' report.

Schedule III

MASSACHUSETTS PORT AUTHORITY

Combining Schedule of Net Position

June 30, 2018

(In thousands)

	Authority Operations	PFC Program	CFC Program	Combined Totals
Current assets:				
Cash and cash equivalents	$ 73,299	$ —	$ —	$ 73,299
Investments	170,039	—	—	170,039
Restricted cash and cash equivalents	117,633	11,626	10,026	139,285
Restricted investments	426,434	12,168	39,917	478,519
Accounts receivable				
Trade, net	51,860	12,788	3,437	68,085
Grants	9,948	—	—	9,948
Total receivables, net	61,808	12,788	3,437	78,033
Prepaid expenses and other assets	9,114	—	57	9,171
Total current assets	858,327	36,582	53,437	948,346
Noncurrent assets:				
Investments	132,105	—	—	132,105
Restricted investments	204,053	14,659	42,864	261,576
Prepaid expenses and other assets, long-term	4,767	—	1,029	5,796
Investment in joint venture	3,130	—	—	3,130
Capital assets-not being depreciated	423,347	—	35	423,382
Capital assets-being depreciated-net	2,146,162	396,159	250,624	2,792,945
Total noncurrent assets	2,913,564	410,818	294,552	3,618,934
Total assets	3,771,891	447,400	347,989	4,567,280
Deferred outflows of resources				
Deferred loss on refunding of bonds	16,243	—	—	16,243
Deferred outflows of resources related to pensions	13,869	—	—	13,869
Deferred outflows of resources related to OPEB	28,974	—	—	28,974
Total deferred outflows of resources	59,086	—	—	59,086
Current liabilities:				
Accounts payable and accrued expenses	160,331	107	50	160,488
Compensated absences	1,327	—	—	1,327
Contract retainage	6,022	—	—	6,022
Current portion of long-term debt	59,222	—	3,729	62,951
Commercial notes payable	142,000	—	—	142,000
Accrued interest payable	34,896	—	5,656	40,552
Unearned revenues	10,185	—	—	10,185
Total current liabilities	413,983	107	9,435	423,525
Noncurrent liabilities				
Accrued expenses	10,846	—	454	11,300
Compensated absences	17,566	—	—	17,566
Net pension liability	34,927	—	—	34,927
Net OPEB liability	143,858	—	—	143,858
Contract retainage	5,778	—	—	5,778
Long-term debt, net	1,582,683	—	189,682	1,772,365
Unearned revenues	20,419	—	—	20,419
Total noncurrent liabilities	1,816,077	—	190,136	2,006,213
Total liabilities	2,230,060	107	199,571	2,429,738
Deferred inflows of resources				
Deferred gain on refunding of bonds	6,074	—	—	6,074
Deferred inflows of resources related to pensions	25,390	—	—	25,390
Deferred inflows of resources related to OPEB	831	—	—	831
Total deferred inflows of resources	32,295	—	—	32,295
Net investment in capital assets	901,662	396,160	81,257	1,379,079
Restricted for other purposes				
Bond funds	212,738	—	—	212,738
Project funds	271,003	—	—	271,003
Passenger facility charges	—	51,133	—	51,133
Customer facility charges		—	67,161	67,161
Other purposes	31,233	—	—	31,233
Total restricted	514,974	51,133	67,161	633,268
Unrestricted	151,986	—	—	151,986
Total net position	$ 1,568,622	$ 447,293	$ 148,418	$ 2,164,333

See accompanying independent auditors' report.

MASSACHUSETTS PORT AUTHORITY

Combining Schedule of Revenues, Expenses, and Changes in Net Position

Year ended June 30, 2018

(In thousands)

	Authority Operations	PFC Program	CFC Program	Combined Totals
Operating revenues:				
Aviation rentals	$ 240,798	$ —	$ —	$ 240,798
Aviation parking	180,803	—	—	180,803
Aviation shuttle bus	20,303	—	—	20,303
Aviation fees	153,236	—	—	153,236
Aviation concessions	114,492	—	—	114,492
Aviation operating grants and other	1,911	—	—	1,911
Maritime fees, rentals and other	94,351	—	—	94,351
Real estate fees, rents and other	30,497	—	—	30,497
Total operating revenues	836,391	—	—	836,391
Operating expenses:				
Aviation operations and maintenance	296,186	—	—	296,186
Maritime operations and maintenance	63,976	—	—	63,976
Real estate operations and maintenance	14,852	—	—	14,852
General and administrative	62,470	—	—	62,470
Payments in lieu of taxes	20,408	—	—	20,408
Pension and other post-employment benefits	28,952	—	—	28,952
Other	8,449	—	—	8,449
Total operating expenses before depreciation and amortization	495,293	—	—	495,293
Depreciation and amortization	203,483	44,496	14,183	262,162
Total operating expenses	698,776	44,496	14,183	757,455
Operating income (loss)	137,615	(44,496)	(14,183)	78,936
Nonoperating revenues and (expenses):				
Passenger facility charges	—	81,016	—	81,016
Customer facility charges	—	—	33,003	33,003
Investment income	16,512	764	1,301	18,577
Net (decrease)/increase in the fair value of investments	(3,769)	(120)	(484)	(4,373)
Other revenues	1,315	—	49	1,364
Settlement of claims	2,019	—	—	2,019
Terminal A debt service contribution	—	(12,232)	—	(12,232)
Other expenses	—	—	(195)	(195)
Gain on sale of equipment	182	—	—	182
Interest expense	(54,215)	(1,856)	(11,419)	(67,490)
Total nonoperating (expense) revenue, net	(37,956)	67,572	22,255	51,871
Increase in net position before capital contributions	99,659	23,076	8,072	130,807
Capital contributions	25,384	—	—	25,384
Increase in net position	125,043	23,076	8,072	156,191
Net position, beginning of year	1,443,579	424,217	140,346	2,008,142
Net position, end of year	$ 1,568,622	$ 447,293	$ 148,418	$ 2,164,333

See accompanying independent auditors' report.