

BLACKROCK MASSACHUSETTS TAX-EXEMPT TRUST  
Form N-Q  
July 23, 2015

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

**FORM N-Q**

**QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED  
MANAGEMENT INVESTMENT COMPANY**

Investment Company Act file number: 811-07660

Name of Fund: BlackRock Massachusetts Tax-Exempt Trust (MHE)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: John M. Perlowski, Chief Executive Officer, BlackRock Massachusetts Tax-Exempt Trust, 55 East 52<sup>nd</sup> Street, New York, NY 10055

Registrant's telephone number, including area code: (800) 882-0052, Option 4

Date of fiscal year end: 08/31/2015

Date of reporting period: 05/31/2015

Item 1 Schedule of Investments

## Schedule of Investments May 31, 2015 (Unaudited)

## BlackRock Massachusetts Tax-Exempt Trust (MHE)

(Percentages shown are based on Net Assets)

	Par (000)	Value
<b>Municipal Bonds</b>		
<b>Massachusetts 152.9%</b>		
<b>County/City/Special District/School District 3.6%</b>		
Town of Holyoke Massachusetts, GO, Refunding, 5.00%, 9/01/26	\$ 1,000	\$ 1,167,800
<b>Education 75.0%</b>		
Massachusetts Development Finance Agency, RB:		
Boston University, Series T-1 (AMBAC), 5.00%, 10/01/39	1,000	1,013,310
Foxborough Regional Charter School, Series A, 7.00%, 7/01/42	250	281,882
Mount Holyoke College, Series B, 5.00%, 7/01/41	500	545,375
Smith College, 5.00%, 7/01/35	2,000	2,007,740
Wellesley College, Series J, 5.00%, 7/01/42	1,950	2,207,985
WGBH Educational Foundation, Series A (AMBAC), 5.75%, 1/01/42	650	800,494
Massachusetts Development Finance Agency, Refunding RB:		
Boston University, Series P, 5.45%, 5/15/59	1,500	1,744,740
Clark University (Syncora), 5.13%, 10/01/35	500	506,815
Emerson College, Series A, 5.00%, 1/01/40	200	209,926
Trustees of Deerfield Academy, 5.00%, 10/01/40	1,675	1,916,334
Wheelock College, Series C, 5.25%, 10/01/37	1,000	1,064,030
Williston Northampton School Project (Syncora), 5.00%, 10/01/25	500	503,010
Worcester Polytechnic Institute (NPFGC), 5.00%, 9/01/27	1,985	2,138,302
Massachusetts Educational Financing Authority, RB, Education Loan, Issue I, AMT, 5.00%, 1/01/27	1,000	1,098,180
Massachusetts Health & Educational Facilities Authority, RB:		
Northeastern University, Series R, 5.00%, 10/01/33	225	247,093
Tufts University, Series O, 5.38%, 8/15/18 (a)	1,000	1,133,240
	<b>Par (000)</b>	<b>Value</b>
<b>Municipal Bonds</b>		
<b>Massachusetts (continued)</b>		
<b>Education (concluded)</b>		
Massachusetts Health & Educational Facilities Authority, Refunding RB:		
Berklee College of Music, Series A, 5.00%, 10/01/37	\$ 1,000	\$ 1,080,370
Harvard University, Series A, 5.50%, 11/15/36	100	114,339
Harvard University, Series B, 5.00%, 10/01/38	400	437,088
Northeastern University, Series T-1, 5.00%, 10/01/31	500	559,820
Northeastern University, Series T-2, 5.00%, 10/01/32	500	556,700
Springfield College, 5.63%, 10/15/40	500	535,000
Tufts University, Series M, 5.50%, 2/15/27	1,000	1,255,580
Massachusetts State College Building Authority, RB, Series A (AMBAC), 5.00%, 5/01/16 (a)	1,000	1,042,840
Massachusetts State College Building Authority, Refunding RB, Series B (Syncora), 5.50%, 5/01/39	825	1,039,657
University of Massachusetts Building Authority, RB, Senior-Series 2, 5.00%, 11/01/39	500	557,980
		24,597,830
<b>Health 24.2%</b>		
Massachusetts Development Finance Agency, RB, 1st Mortgage, Edgcombe Project, Series A, 6.75%, 7/01/21	660	662,911
Massachusetts Development Finance Agency, Refunding RB:		
Carleton-Willard Village, 5.63%, 12/01/30	500	560,975
Partners Healthcare System, Series L, 5.00%, 7/01/36	1,000	1,111,110
Massachusetts Health & Educational Facilities Authority, RB:		
Cape Cod Healthcare Obligated Group, Series D (AGC), 5.00%, 11/15/31	1,000	1,108,920
Caregroup, Series E-1, 5.00%, 7/01/28	500	550,015
Children's Hospital, Series M, 5.25%, 12/01/39	600	677,694

## Schedule of Investments (continued)

## BlackRock Massachusetts Tax-Exempt Trust (MHE)

(Percentages shown are based on Net Assets)

	Par (000)	Value
<b>Municipal Bonds</b>		
<b>Massachusetts (continued)</b>		
<b>Health (concluded)</b>		
Massachusetts Health & Educational Facilities Authority, RB (concluded):		
Children's Hospital, Series M, 5.50%, 12/01/39	\$ 500	\$ 570,770
Lahey Clinic Medical Center, Series D, 5.25%, 8/15/37	1,000	1,057,210
Southcoast Health Obligation Group, Series D, 5.00%, 7/01/39	500	537,200
Massachusetts Health & Educational Facilities Authority, Refunding RB, Winchester Hospital, Series H, 5.25%, 7/01/38	1,000	1,100,470
		7,937,275
<b>Housing 11.3%</b>		
Massachusetts HFA, RB, M/F Housing, Series A (FHA), 5.25%, 12/01/35	185	197,906
Massachusetts HFA, Refunding RB, AMT:		
Series C, 5.00%, 12/01/30	490	506,635
Series C, 5.35%, 12/01/42	2,000	2,068,800
Series F, 5.70%, 6/01/40	890	935,764
		3,709,105
<b>State 19.6%</b>		
Massachusetts Bay Transportation Authority, Refunding RB, Senior Series A, 5.25%, 7/01/29	730	913,748
Massachusetts School Building Authority, RB:		
Dedicated Sales Tax, Senior Series A, 5.00%, 5/15/43	500	556,855
Dedicated Sales Tax, Series A (AGM), 5.00%, 8/15/15 (a)	1,000	1,010,060
Senior Series B, 5.00%, 10/15/41	1,000	1,114,820
	<b>Par</b>	
<b>Municipal Bonds</b>		
<b>Massachusetts (concluded)</b>		
<b>State (concluded)</b>		
Massachusetts State College Building Authority, RB, Series A, 5.50%, 5/01/39	\$ 2,500	\$ 2,828,150
		6,423,633
<b>Transportation 19.2%</b>		
Commonwealth of Massachusetts, RB, Series A, 5.00%, 6/15/27	1,000	1,181,340
Commonwealth of Massachusetts, Refunding RB, Series A, 5.00%, 6/01/38	500	561,805
Massachusetts Department of Transportation, Refunding RB, Senior Series B:		
5.00%, 1/01/32	1,120	1,245,283
5.00%, 1/01/37	1,000	1,097,780
Massachusetts Port Authority, RB, Series A, AMT, 5.00%, 7/01/42	1,000	1,088,830
Metropolitan Boston Transit Parking Corp., Refunding RB, 5.25%, 7/01/36	1,000	1,135,310
		6,310,348
<b>Total Municipal Bonds</b>		
(Cost \$46,366,029) 152.9%		50,145,991
<b>Short-Term Securities</b>		
BIF Massachusetts Municipal Money Fund, 0.00% (b)(c)	Shares	534,877
<b>Total Short-Term Securities</b>		534,877
(Cost \$534,877) 1.6%		534,877
<b>Total Investments (Cost \$46,900,906*) 154.5%</b>		50,680,868
<b>Other Assets Less Liabilities 1.9%</b>		627,679
<b>VRDP Shares, at Liquidation Value (56.4)%</b>		(18,500,000)

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Net Assets Applicable to Common Shares 100.0% \$ 32,808,547

\* As of May 31, 2015, gross unrealized appreciation and depreciation based on cost for federal income tax purposes were as follows:

Tax cost \$ 46,886,930

Gross unrealized appreciation \$ 3,793,938

Gross unrealized depreciation

Net unrealized appreciation \$ 3,793,938

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## Schedule of Investments (continued)

BlackRock Massachusetts Tax-Exempt Trust (MHE)

## Notes to Schedule of Investments

- (a) U.S. Government securities, held in escrow, are used to pay interest on this security, as well as to retire the bond in full at the date indicated, typically at a premium to par.
- (b) During the period ended May 31, 2015, investments in issuers considered to be an affiliate of the Trust for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

Affiliate	Shares Held at August 31, 2014	Net Activity	Shares Held at May 31, 2015	Income
BIF Massachusetts Municipal Money Fund	291,104	243,773	534,877	

- (c) Represents the current yield as of report date.

## Portfolio Abbreviations

<b>AGC</b>	Assured Guarantee Corp.
<b>AGM</b>	Assured Guaranty Municipal Corp.
<b>AMBAC</b>	American Municipal Bond Assurance Corp.
<b>AMT</b>	Alternative Minimum Tax (subject to)
<b>FHA</b>	Federal Housing Administration
<b>GO</b>	General Obligation Bonds
<b>HFA</b>	Housing Finance Agency
<b>M/F</b>	Multi-Family
<b>NPFGC</b>	National Public Finance Guarantee Corp.
<b>RB</b>	Revenue Bonds
<b>Syncora</b>	Syncora Guarantee

As of May 31, 2015, financial futures contracts outstanding were as follows:

Contracts Short	Issue	Exchange	Expiration	Notional Value	Unrealized Depreciation
(23)	10-Year U.S. Treasury Note	Chicago Board of Trade	September 2015	\$ 2,936,813	\$ (9,377)

For Trust compliance purposes, the Trust's sector classifications refer to one or more of the sector sub-classifications used by one or more widely recognized market indexes or rating group indexes, and/or as defined by the investment advisor. These definitions may not apply for purposes of this report, which may combine such sector sub-classifications for reporting ease.

## Schedule of Investments (continued)

BlackRock Massachusetts Tax-Exempt Trust (MHE)

**Fair Value Measurements** Various inputs are used in determining the fair value of investments and derivative financial instruments. These inputs to valuation techniques are categorized into a disclosure hierarchy consisting of three broad levels for financial reporting purposes. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). Accordingly, the degree of judgment exercised in determining fair value is greatest for instruments categorized in Level 3. The inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, for disclosure purposes, the fair value hierarchy classification is determined based on the lowest level input that is significant to the fair value measurement in its entirety. The categorization of a value determined for investments and derivative financial instruments is based on the pricing transparency of the investment and derivative financial instruments and is not necessarily an indication of the risks associated with investing in those securities. The three levels of the fair value hierarchy are as follows:

Level 1 unadjusted quoted prices in active markets/exchanges for identical assets or liabilities that the Trust has the ability to access

Level 2 other observable inputs (including, but not limited to, quoted prices for similar assets or liabilities in markets that are active, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the assets or liabilities (such as interest rates, yield curves, volatilities, prepayment speeds, loss severities, credit risks and default rates) or other market-corroborated inputs)

Level 3 unobservable inputs based on the best information available in the circumstances, to the extent observable inputs are not available (including the Trust's own assumptions used in determining the fair value of investments and derivative financial instruments)

Changes in valuation techniques may result in transfers into or out of an assigned level within the disclosure hierarchy. In accordance with the Trust's policy, transfers between different levels of the fair value disclosure hierarchy are deemed to have occurred as of the beginning of the reporting period. For information about the Trust's policy regarding valuation of investments and derivative financial instruments, refer to the Trust's most recent financial statements as contained in its semi-annual report.

As of May 31, 2015, the following tables summarize the Trust's investments and derivative financial instruments categorized in the disclosure hierarchy:

	Level 1	Level 2	Level 3	Total
<b>Assets:</b>				
Investments:				
Long-Term Investments <sup>1</sup>		\$ 50,145,991		\$ 50,145,991
Short-Term Securities	\$ 534,877			534,877
<b>Total</b>	\$ 534,877	\$ 50,145,991		\$ 50,680,868

<sup>1</sup> See above Schedule of Investments for values in each sector.

	Level 1	Level 2	Level 3	Total
Derivative Financial Instruments <sup>2</sup>				
<b>Liabilities:</b>				
Interest rate contracts	\$ (9,377)			\$ (9,377)

<sup>2</sup> Derivative financial instruments are financial futures contracts, which are valued at the unrealized appreciation (depreciation) on the instrument.

## Schedule of Investments (concluded)

BlackRock Massachusetts Tax-Exempt Trust (MHE)

The Trust may hold assets and/or liabilities in which the fair value approximates the carrying amount for financial reporting purposes. As of May 31, 2015, such assets and/or liabilities are categorized within the disclosure hierarchy as follows:

	Level 1	Level 2	Level 3	Total
<b>Assets:</b>				
Cash pledged for financial futures contracts	\$ 31,050			\$ 31,050
<b>Liabilities:</b>				
VRDP Shares		\$ (18,500,000)		(18,500,000)
<b>Total</b>	\$ 31,050	\$ (18,500,000)		\$ (18,468,950)

During the ended May 31, 2015, there were no transfers between levels.

BLACKROCK MASSACHUSETTS TAX-EXEMPT TRUST

MAY 31, 2015

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Item 2 Controls and Procedures

- 2(a) The registrant's principal executive and principal financial officers, or persons performing similar functions, have concluded that the registrant's disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940, as amended (the "1940 Act")) are effective as of a date within 90 days of the filing of this report based on the evaluation of these controls and procedures required by Rule 30a-3(b) under the 1940 Act and Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended.
- 2(b) There were no changes in the registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under the 1940 Act) that occurred during the registrant's last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the registrant's internal control over financial reporting.

Item 3 Exhibits

Certifications Attached hereto

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BlackRock Massachusetts Tax-Exempt Trust

By: /s/ John M. Perlowski  
John M. Perlowski  
Chief Executive Officer (principal executive officer) of  
BlackRock Massachusetts Tax-Exempt Trust

Date: July 23, 2015

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/ John M. Perlowski  
John M. Perlowski  
Chief Executive Officer (principal executive officer) of  
BlackRock Massachusetts Tax-Exempt Trust

Date: July 23, 2015

By: /s/ Neal J. Andrews  
Neal J. Andrews  
Chief Financial Officer (principal financial officer) of  
BlackRock Massachusetts Tax-Exempt Trust

Date: July 23, 2015