NUVEEN MASSACHUSETTS DIVIDEND ADVANTAGE MUNICIPAL FUND Form N-Q April 29, 2010

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

FORM N-Q

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMPANY

Investment Company Act file number 811-09451

Nuveen Massachusetts Dividend Advantage Municipal Fund (Exact name of registrant as specified in charter)

Nuveen Investments 333 West Wacker Drive, Chicago, Illinois 60606 (Address of principal executive offices) (Zip code)

Kevin J. McCarthy Vice President and Secretary 333 West Wacker Drive, Chicago, Illinois 60606 (Name and address of agent for service)

Registrant's telephone number, including area code: 312-917-7700

Date of fiscal year end: 5/31

Date of reporting period: 2/28/10

Form N-Q is to be used by management investment companies, other than small business investment companies registered on Form N-5 (§§ 239.24 and 274.5 of this chapter), to file reports with the Commission, not later than 60 days after the close of the first and third fiscal quarters, pursuant to rule 30b1-5 under the Investment Company Act of 1940 (17 CFR 270.30b1-5). The Commission may use the information provided on Form N-Q in its regulatory, disclosure review, inspection, and policymaking roles.

A registrant is required to disclose the information specified by Form N-Q, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-Q unless the Form displays a currently valid Office of Management and Budget ("OMB") control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW, Washington, DC 20549-0609. The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. § 3507.

Item 1. Schedule of Investments

Portfolio of Investments (Unaudited)

Nuveen Massachusetts Dividend Advantage Municipal Fund (NMB)

February 28, 2010

Principal

Amount (000) Description (1)

Consumer Discretionary 1.0% (0.6% of Total Investments)

- \$ 480 Boston Industrial Development Financing Authority, Massachusetts, Senior Revenue Bonds, Crosstown Center Project, Series 2002, 6.500%, 9/01/35 (Alternative Minimum Tax)
 Education and Civic Organizations 43.8% (28.8% of Total Investments)
 - 375 Massachusetts Development Finance Agency, Revenue Bonds, Boston University, Series 2009V-1, 5.000%, 10/01/29
 - 450 Massachusetts Development Finance Agency, Revenue Bonds, Worcester Polytechnic Institute, Series 2007, 5.000%, 9/01/37 NPFG Insured
 - 495 Massachusetts Development Finance Authority, Revenue Bonds, Massachusetts College of Pharmacy and Allied Health Sciences, Series 2005D, 5.000%, 7/01/27 AGC Insured
 - 500 Massachusetts Development Finance Authority, Revenue Bonds, Milton Academy, Series 2003A, 5.000%, 9/01/19
 - 500 Massachusetts Development Finance Authority, Revenue Bonds, WGBH Educational Foundation, Series 2002A, 5.750%, 1/01/42 AMBAC Insured
 - 2,100 Massachusetts Development Finance Authority, Revenue Bonds, WGBH Educational Foundation, Series 2008A, 5.000%, 1/01/42 AGC Insured (UB)
 - 1,000 Massachusetts Development Finance Authority, Revenue Refunding Bonds, Boston University, Series 1999P, 6.000%, 5/15/59
 - 990 Massachusetts Educational Finance Authority, Educational Loan Revenue Bonds, Series 2001E,
 5.300%, 1/01/16 AMBAC Insured (Alternative Minimum Tax)
 - 1,000 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Boston College, Series 2003N, 5.250%, 6/01/18
 - 1,000 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Hebrew College, Series 1999A, 0.560%, 7/01/31 RAAI Insured (5)
 - 500 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Springfield College Issue, Series 2010, 5.500%, 10/15/31
 - 2,000 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Tufts University, Series 2001I, 5.500%, 2/15/36
 - 590 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Williams College, Series 2007L, 5.000%, 7/01/31
 - 500 Massachusetts Health and Educational Facilities Authority, Revenue Refunding Bonds, Suffolk University Issue, Series A (2009) Series B (2009) (Federally Taxable), 5.750%, 7/01/39
 - 12,000 Total Education and Civic Organizations

Health Care 26.4% (17.4% of Total Investments)

- 1,000 Massachusetts Health and Educational Facilities Authority Revenue Bonds, Children s Hospital Issue, Series M (2009), 5.500%, 12/01/39
 - 500 Massachusetts Health and Educational Facilities Authority Revenue Bonds, Quincy Medical Center Issue, Series A (2008), 6.500%, 1/15/38
 - 500 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Berkshire Health System, Series 2001E, 6.250%, 10/01/31
 - 775 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Capital Asset Program, Series 1998B-1, 5.375%, 2/01/26 MBIA Insured
 - 500 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Capital Asset Program, Series 1998B-2, 5.375%, 2/01/27 MBIA Insured
 - 250 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Caritas Christi Obligated Group, Series 1999A, 5.625%, 7/01/20
 - 295 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Covenant Health Systems Obligated Group, Series 2002, 6.000%, 7/01/31
 - 315 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Emerson Hospital, Series 2005E, 5.000%, 8/15/35 RAAI Insured
 - 600 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Lahey Clinic Medical Center, Series 2005C, 5.000%, 8/15/21 FGIC Insured
- 1,000 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Lahey Medical Center, Series 2007D, 5.250%, 8/15/28
 - 290 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Milford Regional Medical Center, Series 2007E, 5.000%, 7/15/32
 - 500 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Milton Hospital Project, Series 2005D, 5.250%, 7/01/30
 - 500 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Northern Berkshire Community Services Inc., Series 2004B, 6.375%, 7/01/34
 - 35 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Partners HealthCare System Inc., Series 2001C, 5.750%, 7/01/32
 - 500 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, UMass Memorial Health Care, Series 2001C, 6.625%, 7/01/32
 - 285 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, UMass Memorial Health Care, Series 2005D, 5.000%, 7/01/33
- 7,845 Total Health Care

Housing/Multifamily 11.4% (7.5% of Total Investments)

- 565 Massachusetts Development Finance Authority, Multifamily Housing Revenue Bonds, Emerson Manor Project, Series 2007, 4.800%, 7/20/48
- 500 Massachusetts Housing Finance Agency, Housing Revenue Bonds, Series 2003S, 5.050%, 12/01/23 (Alternative Minimum Tax)
- 1,135 Massachusetts Housing Finance Agency, Rental Housing Mortgage Revenue Bonds, Series 2001A,
 5.850%, 7/01/35 AMBAC Insured (Alternative Minimum Tax)

- 1,000 Somerville Housing Authority, Massachusetts, GNMA Collateralized Mortgage Revenue Bonds, Clarendon Hill Towers, Series 2002, 5.200%, 11/20/22
- 3,200 Total Housing/Multifamily

Housing/Single Family 4.0% (2.6% of Total Investments)

- Massachusetts Housing Finance Agency, Single Family Housing Revenue Bonds, Series 2006-126, 4.625%, 6/01/32 (Alternative Minimum Tax)
- 480 Massachusetts Housing Finance Agency, Single Family Housing Revenue Bonds, Series 2008, Trust 3145, 15.436%, 12/01/33 (IF)
- 1,130 Total Housing/Single Family

Industrials 1.2% (0.8% of Total Investments)

- 145 Massachusetts Development Finance Agency, Pioneer Valley Resource Recovery Revenue Bonds, Eco/Springfield LLC, Series 2006, 5.875%, 7/01/14 (Alternative Minimum Tax)
- 200 Massachusetts Development Finance Agency, Solid Waste Disposal Revenue Bonds, Waste Management Inc., Series 2003, 5.450%, 6/01/14
- 345 Total IndustrialsLong-Term Care 8.2% (5.4% of Total Investments)
- 725 Massachusetts Development Finance Agency, Revenue Bonds, Orchard Cove, Series 2007, 5.250%, 10/01/26
- 655 Massachusetts Development Finance Authority, First Mortgage Revenue Bonds, Berkshire Retirement Community Edgecombe Project, Series 2001A, 6.750%, 7/01/21
- 1,000 Massachusetts Development Finance Authority, GNMA Collateralized Assisted Living Facility Revenue Bonds, Arbors at Chicopee, Series 2001A, 6.250%, 9/20/42 (Alternative Minimum Tax)
- 2,380 Total Long-Term Care

Tax Obligation/General 13.9% (9.1% of Total Investments)

- 310 Ashland, Massachusetts, General Obligation Bonds, Series 2004, 5.250%, 5/15/23 AMBAC Insured
- 2,000 Brookline, Massachusetts, General Obligation Bonds, Series 2000, 5.375%, 4/01/17
 - 440 Fall River, Massachusetts, General Obligation Bonds, Series 2003, 5.000%, 2/01/21 AGM Insured
 - 500 Norwell, Massachusetts, General Obligation Bonds, Series 2003, 5.000%, 11/15/20 FGIC Insured
 - 500 Puerto Rico, General Obligation and Public Improvement Bonds, Series 2001A, 5.500%, 7/01/29
 FGIC Insured
- 3,750 Total Tax Obligation/General

Tax Obligation/Limited 11.8% (7.8% of Total Investments)

- 395 Martha s Vineyard Land Bank, Massachusetts, Revenue Bonds, Series 2004, 5.000%, 5/01/26 AMBAC Insured
- 85 Massachusetts Bay Transportation Authority, Assessment Bonds, Series 2000A, 5.250%, 7/01/30
- 385 Massachusetts Bay Transportation Authority, Senior Lien Sales Tax Revenue Refunding Bonds, Series 2004C, 5.250%, 7/01/21
- 230 Massachusetts College Building Authority, Project Revenue Bonds, Series 2004A, 5.000%,
 5/01/19 NPFG Insured
- 250 Massachusetts College Building Authority, Project Revenue Bonds, Series 2006A, 5.000%,
 5/01/31 AMBAC Insured

- 550 Massachusetts College Building Authority, Project Revenue Bonds, Series 2008A, 5.000%,
 5/01/33 AGC Insured
- 500 Massachusetts School Building Authority, Dedicated Sales Tax Revenue Bonds, Series 2005A,5.000%, 8/15/20 AGM Insured
- 230 Massachusetts, Special Obligation Dedicated Tax Revenue Bonds, Series 2005, 5.000%, 1/01/20 FGIC Insured
- 500 Virgin Islands Public Finance Authority, Gross Receipts Taxes Loan Note, Series 1999A, 6.375%, 10/01/19
- 3,125 Total Tax Obligation/Limited

Transportation 1.4% (0.9% of Total Investments)

- 400 Massachusetts Port Authority, Special Facilities Revenue Bonds, BOSFUEL Corporation, Series 2007, 5.000%, 7/01/32 FGIC Insured (Alternative Minimum Tax)
 U.S. Guaranteed 14.5% (9.6% of Total Investments) (4)
- 1,000 Boston, Massachusetts, General Obligation Bonds, Series 2001A, 5.000%, 2/01/20 (Pre-refunded 2/01/11)
- 1,675 Lawrence, Massachusetts, General Obligation Bonds, Series 2001, 5.000%, 2/01/21 (Pre-refunded 2/01/11) AMBAC Insured
 - 125 Massachusetts Bay Transportation Authority, Assessment Bonds, Series 2000A, 5.250%, 7/01/30 (Pre-refunded 7/01/10)
 - 80 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Covenant Health Systems Obligated Group, Series 2002, 6.000%, 7/01/31 (Pre-refunded 1/01/12)
 - 215 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Partners HealthCare System Inc., Series 2001C, 5.750%, 7/01/32 (Pre-refunded 7/01/11)
 - Massachusetts, Special Obligation Dedicated Tax Revenue Bonds, Series 2004, 5.250%, 1/01/25 (Pre-refunded 1/01/14) FGIC Insured
- 3,845 Total U.S. Guaranteed Utilities 5.6% (3.7% of Total Investments)
- 1,070 Massachusetts Development Finance Agency, Resource Recovery Revenue Bonds, SEMass System, Series 2001A, 5.625%, 1/01/14 NPFG Insured
 - 500 Massachusetts Industrial Finance Agency, Resource Recovery Revenue Refunding Bonds, Ogden Haverhill Project, Series 1998A, 5.600%, 12/01/19 (Alternative Minimum Tax)
- 1,570 Total Utilities

Water and Sewer 8.8% (5.8% of Total Investments)

- 530 Boston Water and Sewerage Commission, Massachusetts, General Revenue Bonds, Senior Series 2004A, 5.000%, 11/01/25
- 125 Guam Government Waterworks Authority, Water and Wastewater System Revenue Bonds, Series 2005, 6.000%, 7/01/25
- 500 Massachusetts Water Pollution Abatement Trust, Pooled Loan Program Bonds, Series 2005-11, 4.500%, 8/01/29
- 400 Massachusetts Water Pollution Abatement Trust, Pooled Loan Program Bonds, Series 2006-12, 4.375%, 8/01/31

- 500 Massachusetts Water Pollution Abatement Trust, Revenue Bonds, MWRA Loan Program, Series 2002A, 5.250%, 8/01/20
- 105 Massachusetts Water Pollution Abatement Trust, Revenue Bonds, MWRA Loan Program, Subordinate Series 1999A, 5.750%, 8/01/29
- 250 Massachusetts Water Resources Authority, General Revenue Bonds, Series 2006A, 4.000%, 8/01/46
- 2,410 Total Water and Sewer
- \$ 42,480 Total Investments (cost \$42,926,950) 152.0%

Floating Rate Obligations (3.7)%

Other Assets Less Liabilities 2.1%

Preferred Shares, at Liquidation Value (50.4)% (6)

Net Assets Applicable to Common Shares 100%

Fair Value Measurements

In determining the value of the Fund s investments, various inputs are used. These inputs are summarized in the three broad levels listed below:

Level 1 Quoted prices in active markets for identical securities.

Level 2 Other significant observable inputs (including quoted prices for similar securities, interest rates, prepayment speeds, credit risk, etc.).

Level 3 Significant unobservable inputs (including management s assumptions in determining the fair value of investments).

The inputs or methodology used for valuing securities are not an indication of the risk associated with investing in those securities. The following is a summary of the Fund s fair value measurements as of February 28, 2010:

	Level 1	Level 2	Level 3	Total
Investments:				
Municipal Bonds	\$	\$41,997,524	\$950,000	\$42,947,524

The following is a reconciliation of the Fund s Level 3 investments held at the beginning and end of the measurement period:

Level 3 Municipal Bonds \$915,010

Balance at beginning of period Gains (losses): Net realized gains (losses)

Net change in unrealized appreciation (depreciation) Net purchases at cost (sales at proceeds) Net discounts (premiums) Net transfers in to (out of) at end of period fair value Balance at end of period

\$950,000

34,990

Income Tax Information

The following information is presented on an income tax basis. Differences between amounts for financial statement and federal income tax purposes are primarily due to timing differences in recognizing taxable market discount, timing differences in recognizing certain gains and losses on investment transactions and the treatment of investments in inverse floating rate securities reflected as financing transactions, if any. To the extent that differences arise that are permanent in nature, such amounts are reclassified within the capital accounts on the Statement of Assets and Liabilities presented in the annual report, based on their federal tax basis treatment; temporary differences do not require reclassification. Temporary and permanent differences do not impact the net asset value of the Fund.

At February 28, 2010, the cost of investments was \$41,855,172.

Gross unrealized appreciation and gross unrealized depreciation of investments at February 28, 2010, were as follows:

Gross unrealized:	
Appreciation	\$ 1,066,495
Depreciation	(1,024,122)
Net unrealized appreciation (depreciation) of investments	\$ 42,373

- (1) All percentages shown in the Portfolio of Investments are based on net assets applicable to Common shares unless otherwise noted.
- (2) Optional Call Provisions: Dates (month and year) and prices of the earliest optional call or redemption. There may be other call provisions at varying prices at later dates. Certain mortgage-backed securities may be subject to periodic principal paydowns.
- (3) Ratings: Using the higher of Standard & Poor s Group (Standard & Poor s) or Moody s Investor Service, Inc. (Moody s) rating. Ratings below BBB by Standard & Poor s or Baa by Moody s are considered to be below investment grade.
- (4) Backed by an escrow or trust containing sufficient U.S. Government or U.S. Government agency securities which ensure the timely payment of principal and interest. Such investments are normally considered to be equivalent to AAA rated securities.
- (5) Investment valued at fair value using methods determined in good faith by, or at the discretion of, the Board of Trustees. For fair value measurement disclosure purposes, investment categorized as Level 3.
- (6) Preferred Shares, at Liquidation Value as a percentage of Total Investments is 33.2%.
- N/R Not rated.
- (IF) Inverse floating rate investment.
- (UB) Underlying bond of an inverse floating rate trust reflected as a financing transaction.

Item 2. Controls and Procedures.

- 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") (17 CFR 270.30a-3(c))) are effective, as of a date within 90 days of the filing date of this report that includes the disclosure required by this paragraph, based on their evaluation of the controls and procedures required by Rule 30a-3(b) under the 1940 Act (17 CFR 270.30a-3(b)) and Rule 13a-15(b) or 15d-15(b) under the Securities Exchange Act of 1934 (17 CFR 240.13a-15(b) or 240.15d-15(b)).
- 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 (17 CFR 270.30a-3(d)) 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.

File as exhibits as part of this Form a separate certification for each principal executive officer and principal financial officer of the registrant as required by Rule 30a-2(a) under the 1940 Act (17 CFR 270.30a-2(a)), exactly as set forth below: See EX-99 CERT attached hereto.

SIGNATURES

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.

(Registrant) Nuveen Massachusetts Dividend Advantage Municipal Fund

By (Signature and Title)	/s/ Kevin J. McCarthy
	Kevin J. McCarthy
	Vice President and Secretary

Date April 29, 2010

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 (Signature and Title)	/s/ Gifford R. Zimmerman Gifford R. Zimmerman Chief Administrative Officer (principal executive officer)
Date April 29, 2010	
By (Signature and Title)	/s/ Stephen D. Foy Stephen D. Foy Vice President and Controller (principal financial officer)

Date April 29, 2010