NUVEEN MASSACHUSETTS PREMIUM INCOME MUNICIPAL FUND Form N-Q April 29, 2009

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 811-7484
Nuveen Massachusetts Premium Income 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: 2/28/09
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 Premium Income Municipal Fund (NMT)
February 28, 2009
Principal

Amount (000) Description (1)

Consumer Discretionary [] 1.6% (1.0% of Total Investments)

\$ 1,445 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 [] 32.0% (20.4% of Total Investments)

- - 890 Massachusetts Development Finance Authority, Revenue Bonds, Curry College, Series 2000A, 6.000%, 3/01/20

 ACA Insured
- 1,745 Massachusetts Development Finance Authority, Revenue Bonds, Massachusetts College of Pharmacy and Allied Health Sciences, Series 2005D, 5.000%, 7/01/27 [] AGC Insured
 - 750 Massachusetts Development Finance Authority, Revenue Bonds, Milton Academy, Series 2003A, 5.000%, 9/01/19
- 4,900 Massachusetts Development Finance Authority, Revenue Bonds, WGBH Educational Foundation, Series 2008A, 5.000%, 1/01/42 [] AGC Insured (UB)
- 1,090 Massachusetts Development Finance Authority, Revenue Refunding Bonds, Boston University, Series 1999P, 6.000%, 5/15/29
- 1,550 Massachusetts Educational Finance Authority, Educational Loan Revenue Bonds, Series 2002E, 5.000%, 1/01/13

 AMBAC Insured (Alternative Minimum Tax)
- 2,000 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Boston College, Series 2003N, 5.250%, 6/01/18
 - 500 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Hebrew College, Series 1999A, 1.200%, 7/01/31 [RAAI Insured (4)
 - 500 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Wellesley College, Series 2003H, 5.000%, 7/01/26
 - 555 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Williams College, Series 2003H, 5.000%, 7/01/21
- 1,380 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 Bonds, Worcester State College, Series 2002, 5.000%, 11/01/32

 AMBAC Insured
- 1,645 Massachusetts Industrial Finance Agency, Revenue Bonds, Whitehead Institute for Biomedical Research, Series 1993, 5.125%, 7/01/26
 - Puerto Rico Industrial, Tourist, Educational, Medical and Environmental Control Facilities
 Financing Authority, Higher Education Revenue Bonds, Ana G. Mendez University System, Series
 1999, 5.375%, 2/01/19
- 19,425 Total Education and Civic Organizations

Health Care \square 23.7% (15.1% of Total Investments)

- 1,250 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Berkshire Health System, Series 2001E, 6.250%, 10/01/31
- 1,000 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Cape Cod Health Care Inc., Series 2001C, 5.250%, 11/15/31
 RAAI Insured
 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Capital Asset Program, Series 1998B-1:
- 1,800 5.375%, 2/01/26 [] MBIA Insured
 - 770 5.375%, 2/01/28 [] MBIA Insured

- 1,500 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Capital Asset Program, Series 1998B-2, 5.375%, 2/01/27 ☐ MBIA Insured
- 1,000 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Caritas Christi Obligated Group, Series 2002B, 6.250%, 7/01/22
 - 935 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Emerson Hospital, Series 2005E, 5.000%, 8/15/35
 RAAI Insured
- 1,000 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Lahey Clinic Medical Center, Series 2005C, 5.000%, 8/15/21 ☐ FGIC Insured
- 2,000 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Lahey Medical Center, Series 2007D, 5.250%, 8/15/28
 - 585 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Milford Regional Medical Center, Series 2007E, 5.000%, 7/15/32
- 1,000 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Milton Hospital Project, Series 2005D, 5.250%, 7/01/30
 - 750 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, New England Medical Center Hospitals, Series 1993G-1, 5.375%, 7/01/24 [] MBIA Insured
 - 75 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Partners HealthCare System Inc., Series 2001C, 5.750%, 7/01/32
 - 375 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, UMass Memorial Health Care, Series 2001C, 6.625%, 7/01/32
- 1,445 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, UMass Memorial Health Care, Series 2005D, 5.000%, 7/01/33
- 2,000 Massachusetts State, Health and Educational Facilities Authority, Partners HealthCare System Inc., Series 2007G, 5.000%, 7/01/32

17,485 Total Health Care

Housing/Multifamily [] 7.8% (5.0% of Total Investments)

- 1,335 Massachusetts Development Finance Authority, Multifamily Housing Revenue Bonds, Emerson Manor Project, Series 2007, 4.800%, 7/20/48
- 1,830 Massachusetts Development Financing Authority, Assisted Living Revenue Bonds, Prospect House Apartments, Series 1999, 7.000%, 12/01/31
 - 335 Massachusetts Housing Finance Agency, Housing Bonds, Series 2006A, 5.100%, 12/01/37 (Alternative Minimum Tax)
 - 500 Massachusetts Housing Finance Agency, Housing Revenue Bonds, Series 2003S, 5.050%, 12/01/23 (Alternative Minimum Tax)
 - Massachusetts Housing Finance Agency, Rental Housing Mortgage Revenue Bonds, Series 1999D, 5.500%, 7/01/13 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

5,320 Total Housing/Multifamily

Housing/Single Family [] 3.5% (2.2% of Total Investments)

- 1,500 Massachusetts Housing Finance Agency, Single Family Housing Revenue Bonds, Series 2006-126, 4.625%, 6/01/32 (Alternative Minimum Tax)
 - 985 Massachusetts Housing Finance Agency, Single Family Housing Revenue Bonds, Series 2008, Trust 3145, 13.576%, 12/01/28 (IF)

2,485 Total Housing/Single Family

Industrials [] 1.1% (0.7% of Total Investments)

- 345 Massachusetts Development Finance Agency, Pioneer Valley Resource Recovery Revenue Bonds, Eco/Springfield LLC, Series 2006, 5.875%, 7/01/14 (Alternative Minimum Tax)
- 400 Massachusetts Development Finance Agency, Solid Waste Disposal Revenue Bonds, Waste Management Inc., Series 2003, 5.450%, 6/01/14

745 Total Industrials

Long-Term Care [] 6.8% (4.3% of Total Investments)

- 1,270 Boston, Massachusetts, FHA-Insured Mortgage Revenue Bonds, Deutsches Altenheim Inc., Series 1998A, 6.125%, 10/01/31
- 1,685 Massachusetts Development Finance Agency, Revenue Bonds, Orchard Cove, Series 2007, 5.250%, 10/01/26
- 1,500 Massachusetts Development Finance Authority, GNMA Collateralized Assisted Living Facility Revenue Bonds, Arbors at Chicopee, Series 2001A, 6.250%, 9/20/42 (Alternative Minimum Tax)
 - 5 Massachusetts Industrial Finance Agency, FHA-Insured Project Revenue Bonds, Heights Crossing LP, Series 1995, 6.000%, 2/01/15 (Alternative Minimum Tax)
 - 400 Massachusetts Industrial Finance Agency, First Mortgage Revenue Bonds, Berkshire Retirement Community, Series 1994B, 4.750%, 7/01/17

4,860 Total Long-Term Care

Tax Obligation/General □ **20.1%** (12.8% of Total Investments)

- 500 Ashland, Massachusetts, General Obligation Bonds, Series 2004, 5.250%, 5/15/23 🛘 AMBAC Insured
- 1,250 Boston, Massachusetts, General Obligation Bonds, Series 2005A, 5.000%, 1/01/17
- 1,000 Fall River, Massachusetts, General Obligation Bonds, Series 2003, 5.000%, 2/01/21 ☐ FSA Insured
- 2,500 Massachusetts Bay Transportation Authority, General Obligation Transportation System Bonds, Series 1991A, 7.000%, 3/01/21
- 1,275 Massachusetts, General Obligation Bonds, Consolidated Loan, Series 2001D, 6.000%, 11/01/13
 MBIA Insured
 - 980 Monson, Massachusetts, General Obligation Bonds, Series 2002, 5.250%, 5/15/22 🛘 AMBAC Insured
- 1,260 Norwell, Massachusetts, General Obligation Bonds, Series 2003, 5.000%, 11/15/20 | FGIC Insured
- 1,000 Puerto Rico, General Obligation and Public Improvement Bonds, Series 2001A, 5.500%, 7/01/29
 FGIC Insured
- 1,220 Worcester, Massachusetts, General Obligation Bonds, Series 2005A, 5.000%, 7/01/19 [] FGIC Insured

10,985 Total Tax Obligation/General

Tax Obligation/Limited ☐ **15.3%** (9.7% of Total Investments)

- 210 Martha S Vineyard Land Bank, Massachusetts, Revenue Bonds, Series 2004, 5.000%, 5/01/26 AMBAC Insured
- 385 Massachusetts Bay Transportation Authority, Senior Lien Sales Tax Revenue Refunding Bonds, Series 2004C, 5.250%, 7/01/21
- 975 Massachusetts Bay Transportation Authority, Senior Sales Tax Revenue Bonds, Series 2006,

- 5.000%, 7/01/26
- 550 Massachusetts College Building Authority, Project Revenue Bonds, Series 2004A, 5.000%, 5/01/19

 MBIA Insured
- 325 Massachusetts College Building Authority, Project Revenue Bonds, Series 2006A, 5.000%, 5/01/31

 AMBAC Insured
- 1,200 Massachusetts College Building Authority, Project Revenue Bonds, Series 2008A, 5.000%, 5/01/33

 ☐ AGC Insured
- 1,000 Massachusetts College Building Authority, Project Revenue Refunding Bonds, Series 2003B, 5.375%, 5/01/23 ☐ SYNCORA GTY Insured
- 1,300 Massachusetts School Building Authority, Dedicated Sales Tax Revenue Bonds, Series 2005A, 5.000%, 8/15/20 ☐ FSA Insured
 - 540 Massachusetts, Special Obligation Dedicated Tax Revenue Bonds, Series 2005, 5.000%, 1/01/20
 FGIC Insured
- 1,000 Massachusetts, Special Obligation Refunding Notes, Federal Highway Grant Anticipation Note Program, Series 2003A, 5.000%, 12/15/13 ☐ FSA Insured
 - 240 Puerto Rico Infrastructure Financing Authority, Special Tax Revenue Bonds, Series 2005A, 0.000%, 7/01/43

 ☐ AMBAC Insured

9,025 Total Tax Obligation/Limited

Transportation [] 9.7% (6.2% of Total Investments)

- 2,000 Massachusetts Port Authority, Revenue Bonds, Series 2003A, 5.000%, 7/01/33 ☐ MBIA Insured
- 1,000 Massachusetts Port Authority, Special Facilities Revenue Bonds, BOSFUEL Corporation, Series 2007, 5.000%, 7/01/32 ☐ FGIC Insured (Alternative Minimum Tax)
- 225 Massachusetts Port Authority, Special Facilities Revenue Bonds, Delta Air Lines Inc., Series 2001A, 5.000%, 1/01/27

 AMBAC Insured (Alternative Minimum Tax)
- 4,000 Massachusetts Port Authority, Special Facilities Revenue Bonds, US Airways Group Inc., Series 1996A, 5.750%, 9/01/16 [] MBIA Insured (Alternative Minimum Tax)

7,225 Total Transportation

U.S. Guaranteed [] 20.1% (12.8% of Total Investments) (5)

- 550 Guam Economic Development Authority, Tobacco Settlement Asset-Backed Bonds, Series 2001B, 5.500%, 5/15/41 (Pre-refunded 5/15/11)
- 25 Massachusetts Bay Transportation Authority, Senior Sales Tax Revenue Bonds, Series 2006, 5.000%, 7/01/26 (Pre-refunded 7/01/18)
- 2,500 Massachusetts Development Finance Authority, GNMA Collateralized Revenue Bonds, VOA Concord Assisted Living Inc., Series 2000A, 6.900%, 10/20/41 (Pre-refunded 10/20/11)
 - 500 Massachusetts Development Finance Authority, Revenue Bonds, Belmont Hills School, Series 2001, 5.375%, 9/01/23 (Pre-refunded 9/01/11)
- 1,000 Massachusetts Development Finance Authority, Revenue Bonds, Massachusetts College of Pharmacy and Allied Health Sciences, Series 2003C, 5.750%, 7/01/33 (Pre-refunded 7/01/13)
 - 410 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, CareGroup Inc., Series 1998A, 5.000%, 7/01/25 (Pre-refunded 7/01/21) [] MBIA Insured
 - 600 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, New England Medical Center Hospitals, Series 2002H, 5.375%, 5/15/19 (Pre-refunded 5/15/12)

 FGIC Insured

- 1,925 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Partners HealthCare System Inc., Series 2001C, 5.750%, 7/01/32 (Pre-refunded 7/01/11)
- 1,000 Massachusetts Health and Educational Facilities Authority, Revenue Bonds, University of Massachusetts [] Worcester Campus, Series 2001B, 5.250%, 10/01/31 (Pre-refunded 10/01/11) [] FGIC Insured
 - 620 Massachusetts Port Authority, Revenue Bonds, Series 1982, 13.000%, 7/01/13 (ETM)
- 1,500 Massachusetts, Special Obligation Dedicated Tax Revenue Bonds, Series 2004, 5.250%, 1/01/25 (Pre-refunded 1/01/14) [FGIC Insured

10,630 Total U.S. Guaranteed

Utilities ☐ 3.0% (1.9% of Total Investments)

- 1,000 Massachusetts Development Finance Agency, Resource Recovery Revenue Bonds, SEMass System, Series 2001A, 5.625%, 1/01/16

 ↑ MBIA Insured
- 1,000 Massachusetts Industrial Finance Agency, Resource Recovery Revenue Refunding Bonds, Ogden Haverhill Project, Series 1998A, 5.600%, 12/01/19 (Alternative Minimum Tax)

2,000 Total Utilities

Water and Sewer [] 12.3% (7.9% of Total Investments)

- 2,000 Boston Water and Sewerage Commission, Massachusetts, General Revenue Bonds, Senior Series 2004A. 5.000%. 11/01/25
 - 60 Massachusetts Water Pollution Abatement Trust, Pooled Loan Program Bonds, Series 2003-9, 5.000%, 8/01/22
 - 285 Massachusetts Water Pollution Abatement Trust, Pooled Loan Program Bonds, Series 2004-10, 5.000%, 8/01/26
 - 750 Massachusetts Water Pollution Abatement Trust, Pooled Loan Program Bonds, Series 2005-11, 4.500%, 8/01/29
- 1,000 Massachusetts Water Pollution Abatement Trust, Pooled Loan Program Bonds, Series 2006-12, 4.375%, 8/01/31
- 1,250 Massachusetts Water Pollution Abatement Trust, Revenue Bonds, MWRA Loan Program, Series 2002A,