

NUVEEN MASSACHUSETTS PREMIUM INCOME MUNICIPAL FUND
Form N-Q
October 29, 2004

**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)

333 West Wacker Drive, Chicago, Illinois, 60606

Address of principal executive offices) (Zip code)

Jessica R. Droeger 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: 05/31

Date of reporting period: 08/31/04

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)

August 31, 2004

| Principal Description ⁽¹⁾ | Optional Call Provisions* | Ratings** | Market Value |
|---|------------------------------|-----------|-----------------|
|---|------------------------------|-----------|-----------------|

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| Principal Amount (000) | | Optional Call | | Market |
|--|--|-----------------|------|--------------|
| Consumer Discretionary - 2.1% | | | | |
| \$ 1,500 | Boston Industrial Development Financing Authority, Massachusetts, Senior Revenue Bonds, Crosstown Center Project, Series 2002, 6.500%, 9/01/35 (Alternative Minimum Tax) | 9/12 at 102.00 | Baa3 | \$ 1,485,195 |
| Education and Civic Organizations - 34.5% | | | | |
| 280 | Massachusetts Education Loan Authority, Student Loan Revenue Bonds, Series 1995, Issue E, 6.150%, 7/01/10 (Alternative Minimum Tax) - AMBAC Insured | 1/05 at 101.50 | AAA | 285,964 |
| 1,680 | Massachusetts Educational Finance Authority, Educational Loan Revenue Bonds, Series 2002E, 5.000%, 1/01/13 (Alternative Minimum Tax) - AMBAC Insured | 1/12 at 100.00 | AAA | 1,756,961 |
| 1,090 | Massachusetts Development Finance Authority, Revenue Refunding Bonds, Boston University, Series 1999P, 6.000%, 5/15/29 | No Opt. Call | A3 | 1,188,765 |
| 1,000 | Massachusetts Development Finance Authority, Revenue Bonds, Massachusetts College of Pharmacy and Allied Health Sciences, Series 2003C, 5.750%, 7/01/33 | 7/13 at 101.00 | BBB | 1,031,970 |
| 890 | Massachusetts Development Finance Authority, Revenue Bonds, Curry College, Series 2000A, 6.000%, 3/01/20 - ACA Insured | 3/09 at 101.00 | A | 937,001 |
| 750 | Massachusetts Development Finance Authority, Revenue Bonds, Milton Academy, Series 2003A, 5.000%, 9/01/19 | 9/13 at 100.00 | AA- | 813,652 |
| 500 | Massachusetts Development Finance Authority, Revenue Bonds, Belmont Hills School, Series 2001, 5.375%, 9/01/23 | 9/11 at 101.00 | A | 530,920 |
| 2,000 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Boston College, Series 2003N, 5.250%, 6/01/18 | 6/13 at 100.00 | AA- | 2,180,600 |
| 1,500 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, University of Massachusetts - Worcester Campus, Series 2001B, 5.250%, 10/01/31 - FGIC Insured | 10/11 at 100.00 | AAA | 1,558,770 |
| 555 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Williams College, Series 2003H, 5.000%, 7/01/21 | 7/13 at 100.00 | AA+ | 586,407 |
| 500 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Wellesley College, Series 2003H, 5.000%, 7/01/26 | 7/13 at 100.00 | AA+ | 513,075 |
| 1,000 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Massachusetts Institute of Technology, Series 2004M, 5.250%, 7/01/15 | No Opt. Call | AAA | 1,145,440 |
| 2,645 | Massachusetts Industrial Finance Agency, Revenue Bonds, Whitehead Institute for Biomedical Research, Series 1993, 5.125%, 7/01/26 | 1/05 at 101.00 | Aa1 | 2,676,132 |
| 2,300 | Massachusetts Industrial Finance Agency, Revenue Bonds, Belmont Hill School, Series 1998, 5.250%, 9/01/28 | 9/08 at 101.00 | A | 2,337,237 |

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| Principal | | Optional Call | | Market |
|------------------------------------|--|-----------------|------|-----------|
| 4,000 | New England Education Loan Marketing Corporation, Massachusetts Student Loan Revenue Bonds, Subordinate Series 1992H, 6.900%, 11/01/09 (Alternative Minimum Tax) | No Opt. Call | A3 | 4,349,520 |
| 1,200 | University of Massachusetts Building Authority, Senior Lien Project Revenue Bonds, Series 2003-1, 5.250%, 11/01/18 - AMBAC Insured | 11/13 at 100.00 | AAA | 1,322,328 |
| 1,000 | University of Massachusetts Building Authority, Senior Lien Project Revenue Bonds, Series 2004-1, 5.250%, 11/01/24 - AMBAC Insured | 11/14 at 100.00 | AAA | 1,067,740 |
| <hr/> | | | | |
| Healthcare - 18.9% | | | | |
| 3,000 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, New England Medical Center Hospitals, Series 1993G-1, 5.375%, 7/01/24 - MBIA Insured | 1/05 at 102.00 | AAA | 3,066,330 |
| 1,000 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Lahey Clinic Medical Center, Series 1993B, 5.625%, 7/01/15 - MBIA Insured | 1/05 at 101.00 | AAA | 1,012,590 |
| 600 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, New England Medical Center Hospitals, Series 2002H, 5.375%, 5/15/19 - FGIC Insured | 5/12 at 100.00 | AAA | 652,758 |
| 2,500 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Partners HealthCare System Inc., Series 2001C, 5.750%, 7/01/32 | 7/11 at 101.00 | AA- | 2,654,200 |
| 375 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, UMass Memorial Health Care, Series 2001C, 6.625%, 7/01/32 | 7/11 at 100.00 | BBB | 390,176 |
| 1,395 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, CareGroup Inc., Series 1998A, 5.000%, 7/01/25 - MBIA Insured | 7/08 at 102.00 | AAA | 1,417,822 |
| 1,000 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Cape Cod Health Care Inc., Series 2001C, 5.250%, 11/15/31 - RAAI Insured | 11/11 at 101.00 | AA | 1,022,630 |
| 2,000 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Berkshire Health System, Series 2001E, 6.250%, 10/01/31 | 10/11 at 101.00 | BBB+ | 2,070,580 |
| 1,000 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Caritas Christi Obligated Group, Series 2002B, 6.250%, 7/01/22 | 7/12 at 101.00 | BBB | 1,048,260 |
| <hr/> | | | | |
| Housing/Multifamily - 16.1% | | | | |
| 2,500 | Massachusetts Development Finance Authority, GNMA Collateralized Revenue Bonds, VOA Concord Assisted Living Inc., Series 2000A, 6.900%, 10/20/41 | 10/11 at 105.00 | AAA | 2,807,775 |
| 1,950 | Massachusetts Development Financing Authority, Assisted Living Revenue Bonds, Prospect House Apartments, Series 1999, 7.000%, 12/01/31 | 12/09 at 102.00 | N/R | 1,884,266 |
| 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) | 3/12 at 105.00 | AAA | 1,634,550 |
| 65 | Massachusetts Housing Finance Agency, Housing Project Revenue Refunding Bonds, Series 1993A, 6.300%, 10/01/13 | 10/04 at 101.00 | A+ | 65,660 |

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| Principal | | Optional Call | | Market |
|---------------------------------------|--|-----------------|------|-----------|
| 1,425 | Massachusetts Housing Finance Agency, Rental Housing Mortgage Revenue Bonds, Series 1999D, 5.500%, 7/01/13 (Alternative Minimum Tax) - AMBAC Insured | 7/10 at 101.00 | AAA | 1,526,089 |
| 1,835 | Massachusetts Housing Finance Agency, FHA-Insured Rental Housing Mortgage Revenue Bonds, Series 1995A, 7.350%, 1/01/35 (Alternative Minimum Tax) - AMBAC Insured | 1/05 at 102.00 | AAA | 1,881,462 |
| 500 | Massachusetts Housing Finance Agency, Housing Revenue Bonds, Series 2003S, 5.050%, 12/01/23 (Alternative Minimum Tax) | 6/13 at 100.00 | AA- | 507,130 |
| 1,000 | Somerville Housing Authority, Massachusetts, GNMA Collateralized Mortgage Revenue Bonds, Clarendon Hill Towers, Series 2002, 5.200%, 11/20/22 | 5/12 at 103.00 | AAA | 1,064,900 |
| Industrials - 0.6% | | | | |
| 400 | Massachusetts Development Finance Agency, Solid Waste Disposal Revenue Bonds, Waste Management Inc., Series 2003, 5.450%, 6/01/14 | No Opt. Call | BBB | 416,860 |
| Long-Term Care - 5.8% | | | | |
| 1,270 | Boston, Massachusetts, FHA-Insured Mortgage Revenue Bonds, Deutsches Altenheim Inc., Series 1998A, 6.125%, 10/01/31 | 10/08 at 105.00 | AAA | 1,382,738 |
| 2,000 | Massachusetts Industrial Finance Agency, Healthcare Facilities Revenue Bonds, Jewish Geriatric Services Inc. Obligated Group, Series 1997B, 5.500%, 5/15/27 | 5/07 at 102.00 | A-1+ | 2,030,000 |
| 645 | Massachusetts Industrial Finance Agency, FHA-Insured Project Revenue Bonds, Heights Crossing LP, Series 1995, 6.000%, 2/01/15 (Alternative Minimum Tax) | 2/06 at 102.00 | AAA | 683,016 |
| Tax Obligation/General - 27.7% | | | | |
| 1,180 | Boston, Massachusetts, General Obligation Bonds, Series 2001B, 5.000%, 8/01/15 | 8/11 at 100.00 | AA | 1,276,559 |
| 645 | East Longmeadow, Massachusetts, General Obligation Bonds, Series 2001, 5.000%, 8/01/14 - AMBAC Insured | 8/11 at 101.00 | Aaa | 711,712 |
| 1,000 | Fall River, Massachusetts, General Obligation Bonds, Series 2003, 5.000%, 2/01/21 - FSA Insured | 2/13 at 101.00 | AAA | 1,066,870 |
| 2,500 | Massachusetts Bay Transportation Authority, General Obligation Transportation System Bonds, Series 1991A, 7.000%, 3/01/21 | No Opt. Call | AAA | 3,215,600 |
| 3,275 | Massachusetts, General Obligation Bonds, Consolidated Loan, Series 2001D, 6.000%, 11/01/13 - MBIA Insured | No Opt. Call | AAA | 3,888,932 |
| 1,865 | Massachusetts, General Obligation Bonds, Consolidated Loan, Series 2003A, 5.000%, 1/01/22 (Pre-refunded to 1/01/13) | 1/13 at 100.00 | Aa2 | 2,060,638 |
| 1,250 | Massachusetts, General Obligation Bonds, Consolidated Loan, Series 2004B, 5.000%, 8/01/24 | 8/14 at 100.00 | Aa2 | 1,297,988 |
| 980 | Monson, Massachusetts, General Obligation Bonds, Series 2002, 5.250%, 5/15/22 - AMBAC Insured | 5/12 at 101.00 | Aaa | 1,052,471 |
| 1,000 | | 6/10 at 101.00 | Aaa | 1,184,680 |

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| Principal | | Optional Call | | Market |
|---------------------------------------|--|----------------|-----|-----------|
| | Narragansett Regional School District, Massachusetts, General Obligation Bonds, Series 2000, 6.500%, 6/01/16 - AMBAC Insured | | | |
| 1,260 | Norwell, Massachusetts, General Obligation Bonds, Series 2003, 5.000%, 11/15/20 - FGIC Insured | No Opt. Call | AAA | 1,398,764 |
| 530 | Springfield, Massachusetts, General Obligation Bonds, Series 2003: 5.250%, 1/15/15 - MBIA Insured | 1/13 at 100.00 | AAA | 591,692 |
| 1,615 | 5.250%, 1/15/23 - MBIA Insured | 1/13 at 100.00 | AAA | 1,735,350 |
| Tax Obligation/Limited - 12.5% | | | | |
| 385 | Massachusetts Bay Transportation Authority, Senior Lien Sales Tax Revenue Bonds, Series 2004C, 5.250%, 7/01/21 | No Opt. Call | AAA | 434,661 |
| 1,000 | Massachusetts College Building Authority, Project Revenue Refunding Bonds, Series 2003B, 5.375%, 5/01/23 - XLCA Insured | No Opt. Call | AAA | 1,122,510 |
| 550 | Massachusetts College Building Authority, Project Revenue Bonds, Series 2004A, 5.000%, 5/01/19 - MBIA Insured | 5/14 at 100.00 | AAA | 590,739 |
| 1,500 | Massachusetts, Special Obligation Dedicated Tax Revenue Bonds, Series 2004, 5.250%, 1/01/25 - FGIC Insured | 1/14 at 100.00 | AAA | 1,593,690 |
| 3,000 | Massachusetts, Special Obligation Refunding Notes, Federal Highway Grant Anticipation Note Program, Series 2003A, 5.000%, 12/15/13 - FSA Insured | No Opt. Call | Aaa | 3,308,520 |
| 1,500 | Puerto Rico Highway and Transportation Authority, Highway Revenue Bonds, Series 2003AA, 5.500%, 7/01/19 - MBIA Insured | No Opt. Call | AAA | 1,758,105 |
| Transportation - 8.8% | | | | |
| 2,000 | Massachusetts Port Authority, Revenue Bonds, Series 2003A, 5.000%, 7/01/33 - MBIA Insured | 7/13 at 100.00 | AAA | 2,034,880 |
| 4,000 | Massachusetts Port Authority, Special Facilities Revenue Bonds, US Airways Group Inc., Series 1996A, 5.750%, 9/01/16 (Alternative Minimum Tax) - MBIA Insured | 9/06 at 102.00 | AAA | 4,143,120 |
| U.S. Guaranteed*** - 11.4% | | | | |
| 1,250 | Massachusetts, General Obligation Bonds, Consolidated Loan, Series 2000A, 6.000%, 2/01/14 (Pre-refunded to 2/01/10) | 2/10 at 101.00 | AAA | 1,444,425 |
| 2,500 | Massachusetts Health and Educational Facilities Authority, FHA-Insured Revenue Bonds, Malden Hospital, Series 1982A, 5.000%, 8/01/16 (Pre-refunded to 8/01/10) | 8/10 at 100.00 | AAA | 2,701,975 |
| 2,000 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Daughters of Charity National Health System - Carney Hospital, Series 1994D, 6.100%, 7/01/14 (Pre-refunded to 7/01/06) | 7/06 at 100.00 | Aaa | 2,085,500 |
| 410 | Massachusetts Health and Educational Facilities Authority, Revenue Bonds, CareGroup Inc., Series 1998A, 5.000%, 7/01/25 - MBIA Insured | 7/08 at 102.00 | AAA | 445,908 |
| 905 | Massachusetts Port Authority, Revenue Bonds, Series 1982, 13.000%, 7/01/13 | 1/05 at 100.00 | AAA | 1,336,369 |

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| Principal | | Optional Call | Market |
|-------------------------------|---|-----------------|---------------|
| Utilities - 3.0% | | | |
| 1,000 | Massachusetts Development Finance Agency, Resource Recovery Revenue Bonds, SEMass System, Series 2001A, 5.625%, 1/01/16 - MBIA Insured | 1/12 at 101.00 | AAA 1,117,590 |
| 1,000 | Massachusetts Industrial Finance Agency, Resource Recovery Revenue Refunding Bonds, Ogden Haverhill Project, Series 1998A, 5.600%, 12/01/19 (Alternative Minimum Tax) | 12/08 at 102.00 | BBB 995,540 |
| Water and Sewer - 5.2% | | | |
| 2,000 | Boston Water and Sewer Commission, Massachusetts, General Revenue Bonds, Senior Series 2004A, 5.000%, 11/01/25 | 11/14 at 100.00 | AA 2,073,300 |
| 1,500 | Massachusetts Water Pollution Abatement Trust, Pooled Loan Program Bonds, Series 9, 5.000%, 8/01/22 | 8/13 at 100.00 | AAA 1,571,940 |
| \$ 95,950 | Total Long-Term Investments (cost \$98,109,211) - 146.6% | | 103,227,497 |
| | Other Assets Less Liabilities - 1.7% | | 1,202,702 |
| | Preferred Shares, at Liquidation Value - (48.3)% | | (34,000,000) |
| | Net Assets Applicable to Common Shares - 100% | | \$70,430,199 |
| (1) | All percentages shown in the Portfolio of Investments are based on net assets applicable to Common shares. | | |
| * | 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. | | |
| ** | Ratings: Using the higher of Standard & Poor's or Moody's rating. | | |
| *** | Securities are backed by an escrow or trust containing sufficient U.S. Government or U.S. Government agency securities which ensures the timely payment of principal and interest. Such securities are normally considered to be equivalent to AAA rated securities. | | |
| N/R | Investment is not rated. | | |
| | 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 income on taxable market discount securities and timing differences in recognizing certain gains and losses on security transactions. | | |
| | At August 31, 2004, the cost of investments was \$97,972,167. | | |
| | Gross unrealized appreciation and gross unrealized depreciation of investments at August 31, 2004, were as follows: | | |
| | Gross unrealized: | | |
| | Appreciation | \$5,401,007 | |
| | Depreciation | (145,677) | |
| | Net unrealized appreciation of investments | \$5,255,330 | |

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 has materially affected, or is 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 Act (17 CFR 270.30a-2(a)), exactly as set forth below: 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 Premium Income Municipal Fund

By (Signature and Title)* /s/ Jessica R. Droeger--Vice President and Secretary

Date 10/29/04

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--Chief Administrative Officer (Principal Executive Officer)

Date 10/29/04

By (Signature and Title)* /s/ Stephen D. Foy--Vice President and Controller (Principal Financial Officer)

Date 10/29/04

* Print the name and title of each signing officer under his or her signature.