

NUVEEN MASSACHUSETTS PREMIUM INCOME MUNICIPAL FUND
Form N-23C-2
January 21, 2010

Securities and Exchange Commission
Washington, DC 20549
Rule 23c-2 Notice of Intention to
Redeem Securities

of

Nuveen Massachusetts Premium Income Municipal Fund
333 West Wacker Drive
Chicago, Illinois 60606

under the

Investment Company Act of 1940

Investment Company Act File No. 811-07484

The undersigned registered closed-end investment company hereby notifies the Securities and Exchange Commission that it intends to redeem securities of which it is the issuer, as set forth below in accordance with the requirements of Rule 23c-2 under the Investment Company Act of 1940 (the "Act"), and states that it is filing this notice with the Commission pursuant to permission granted by the Commission staff fewer than 30 days prior to the date set for the redemption.

- (1) Title of the class of securities of Nuveen Massachusetts Premium Income Municipal Fund (the "Fund") to be redeemed:

Municipal Auction Rate Cumulative Preferred Shares, Liquidation Preference \$25,000 per share, Series TH (CUSIP 67061E203) (the "MuniPreferred Shares").

- (2) Date on which the securities are to be called or redeemed:

| Series | Date |
|--------|-------------------|
| TH | February 17, 2010 |

- (3) Applicable provisions of the governing instrument pursuant to which the securities are to be redeemed:

The MuniPreferred Shares are to be redeemed pursuant to Section 11(a)(i) of the Statement Establishing and Fixing the Rights and Preferences of Municipal Auction Rate Cumulative Preferred Shares of the Fund.

(4) The number of shares to be redeemed and the basis upon which the shares to be redeemed are to be selected:

The Fund intends to redeem, by lot (as determined by The Depository Trust Company), the number of outstanding MuniPreferred Shares set forth below:

| Series | Number of Shares |
|--------|------------------|
| TH | 681 |

[Remainder of Page Left Blank]

SIGNATURE

Pursuant to the requirement of Rule 23c-2 under the Investment Company Act of 1940, the Fund has duly caused this Notice of Intention to Redeem Securities to be signed on its behalf by the undersigned on this 21st day of January, 2010.

NUVEEN MASSACHUSETTS PREMIUM INCOME
MUNICIPAL FUND

By: /s/Mark L. Winget
Name: Mark L. Winget
Title: Vice President and Assistant
Secretary

