
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 3)

**PIONEER MUNICIPAL HIGH INCOME ADVANTAGE FUND,
INC.**

(Name of issuer)

VARIABLE RATE MUNIFUND TERM PREFERRED SHARES
(Title of Class of Securities)

723762407
(CUSIP Number)

Bank of America Corporation
Bank of America Corporate Center
100 N. Tryon Street
Charlotte, North Carolina 28255

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

March 29, 2012
(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition which is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(e), 13d-1(f) or 13d-1(g), check the following box .

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 723762407

| | | |
|--|---|--|
| 1 | NAMES OF REPORTING PERSONS Bank of America Corporation 56-0906609 | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> | |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (SEE INSTRUCTIONS) WC | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) <input checked="" type="checkbox"/> | |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION Delaware | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER 0 |
| | 8 | SHARED VOTING POWER 500 |
| | 9 | SOLE DISPOSITIVE POWER 0 |
| | 10 | SHARED DISPOSITIVE POWER 500 |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 500 | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/> | |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 100% | |
| 14 | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) HC | |

*The calculation of the percentage of outstanding shares is based on 500 shares of VMTP shares outstanding as of September 30, 2024, as described in the Annual Report, N-CSR, filed by Pioneer Municipal High Income Advantage Fund, Inc. with the SEC on December 06, 2024.

SCHEDULE 13D

CUSIP No. 723762407

| | | |
|--|---|--|
| 1 | NAMES OF REPORTING PERSONS Banc of America Preferred Funding Corporation 75-2939570 | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> | |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS (SEE INSTRUCTIONS) WC | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(D) OR 2(E) <input type="checkbox"/> | |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION Delaware | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER 0 |
| | 8 | SHARED VOTING POWER 500 |
| | 9 | SOLE DISPOSITIVE POWER 0 |
| | 10 | SHARED DISPOSITIVE POWER 500 |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 500 | |
| 12 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/> | |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 100% | |
| 14 | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) CO | |

*The calculation of the percentage of outstanding shares is based on 500 shares of VMTP shares outstanding as of September 30, 2024, as described in the Annual Report, N-CSR, filed by Pioneer Municipal High Income Advantage Fund, Inc. with the SEC on December 06, 2024.

Item 1. Security and Issuer

This Amendment No. 3 (this “**Amendment**”) amends, as set forth below, the statement on Schedule 13D, dated May 30, 2023 and filed with the SEC on June 7, 2023 (as amended to the date hereof, the “**Original Schedule 13D**”) for Bank of America Corporation (“**BAC**”) and Banc of America Preferred Funding Corporation (“**BAPFC**”) (collectively, the “**Reporting Persons**”) with respect to the Variable Rate MuniFund Term Preferred Shares (“**VMTP Shares**”) of Pioneer Municipal High Income Advantage Fund, Inc. (the “**Issuer**”).

This amendment is being filed to disclose previously unreported trades.

Item 2. Identity and Background

Item 2 of the Original Schedule 13D is hereby amended by deleting Schedule I and Schedule II referenced therein and replacing them with Schedule I and Schedule II included with this Amendment.

Item 5. Interest in Securities of the Issuer

The Reporting Person have effected the transactions in securities of the Issuer identified in Schedule III

Item 7. Material to be Filed as Exhibits

Item 7 of the Original Schedule 13D is hereby amended by deleting Exhibit 99.1 and Exhibit 99.2 thereto and the insertion of the following exhibits:

Exhibit Description of Exhibit

[99.1](#) Joint Filing Agreement, dated as of December 13, 2024, by and among the Reporting Persons.

[99.2](#) Power of Attorney, relating to each of the Reporting Persons.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: December 13, 2024.

BANK OF AMERICA CORPORATION

By: /s/ Andres Ortiz

Name: Andres Ortiz

Title: Authorized Signatory

BANC OF AMERICA PREFERRED FUNDING CORPORATION

By: /s/ Andres Ortiz

Name: Andres Ortiz

Title: Authorized Signatory

SCHEDULE I**EXECUTIVE OFFICERS AND DIRECTORS OF
REPORTING PERSONS**

The following sets forth the name and present principal occupation of each executive officer and director of Bank of America Corporation. The business address of each of the executive officers and directors of Bank of America Corporation is Bank of America Corporate Center, 100 North Tryon Street, Charlotte, North Carolina 28255.

| <u>Name</u> | <u>Position with Bank of America Corporation</u> | <u>Principal Occupation</u> |
|----------------------|---|--|
| Brian T. Moynihan | Chairman of the Board, Chief Executive Officer and Director | Chairman of the Board and Chief Executive Officer of Bank of America Corporation |
| Paul M. Donofrio | Vice Chair | Vice Chair of Bank of America Corporation |
| Thong M. Nguyen | Vice Chair, Head of Global Strategy & Enterprise Platforms | Vice Chair, Head of Global Strategy & Enterprise Platforms of Bank of America Corporation |
| Bruce R. Thompson | Vice Chair, Head of Enterprise Credit | Vice Chair, Head of Enterprise Credit of Bank of America Corporation |
| Dean C. Athanasia | President, Regional Banking | President, Regional Banking of Bank of America Corporation |
| James P. DeMare | President, Global Markets | President, Global Markets of Bank of America Corporation |
| Kathleen A. Knox | President, The Private Bank | President, The Private Bank of Bank of America Corporation |
| Matthew M. Koder | President, Global Corporate and Investment Banking | President, Global Corporate and Investment Banking of Bank of America Corporation |
| Bernard A. Mensah | President, International; CEO, Merrill Lynch International | President, International of Bank of America Corporation and CEO, Merrill Lynch International |
| Lindsay DeNardo Hans | President, Co-Head Merrill Wealth Management | President, Co-Head Merrill Wealth Management of Bank of America Corporation |
| Eric Schimpf | President, Co-Head Merrill Wealth Management | President, Co-Head Merrill Wealth Management of Bank of America Corporation |
| Aditya Bhasin | Chief Technology and Information Officer | Chief Technology and Information Officer of Bank of America Corporation |
| D. Steve Boland | Chief Administrative Officer | Chief Administrative Officer of Bank of America Corporation |
| Alastair Borthwick | Chief Financial Officer | Chief Financial Officer of Bank of America Corporation |

| | | |
|----------------------------------|-------------------------------|--|
| Sheri Bronstein | Chief Human Resources Officer | Chief Human Resources Officer of Bank of America Corporation |
| Geoffrey Greener | Chief Risk Officer | Chief Risk Officer of Bank of America Corporation |
| Thomas M. Scrivener | Chief Operations Executive | Chief Operations Executive of Bank of America Corporation |
| Lauren A. Mogensen | Global General Counsel | Global General Counsel of Bank of America Corporation |
| Lionel L. Nowell, III | Lead Independent Director | Lead Independent Director, Bank of America Corporation; Former Senior Vice President and Treasurer, PepsiCo, Inc. |
| Sharon L. Allen | Director | Former Chairman, Deloitte LLP |
| Jose E. Almeida | Director | Chairman, President and Chief Executive Officer of Baxter International Inc. |
| Pierre J.P. de Weck ¹ | Director | Former Chairman and Global Head of Private Wealth Management, Deutsche Bank AG |
| Arnold W. Donald | Director | Former President and Chief Executive Officer, Carnival Corporation & Carnival plc |
| Linda P. Hudson | Director | Former Executive Officer, The Cardea Group, LLC and Former President and Chief Executive Officer of BAE Systems, Inc. |
| Monica C. Lozano | Director | Lead Independent Director, Target Corporation; Former Chief Executive Officer, Former College Futures Foundation and Former Chairman, US Hispanic Media Inc. |
| Denise L. Ramos | Director | Former Chief Executive Officer and President of ITT Inc. |
| Clayton S. Rose | Director | Baker Foundation Professor of Management Practice at Harvard Business School |
| Michael D. White | Director | Former Chairman, President, and Chief Executive Officer of DIRECTV |
| Thomas D. Woods ² | Director | Former Vice Chairman and Senior Executive Vice President of Canadian Imperial Bank of Commerce; Former Chairman, Hydro One Limited |
| Maria T. Zuber | Director | Vice President for Research and E.A., Griswold Professor of Geophysics, MIT |

¹ Mr. de Weck is a citizen of Switzerland.

² Mr. Woods is a citizen of Canada.

The following sets forth the name and present principal occupation of each executive officer and director of Banc of America Preferred Funding Corporation. The business address of each of the executive officers and directors of Banc of America Preferred Funding Corporation is 214 North Tryon Street, Charlotte, North Carolina 28255.

| <u>Name</u> | <u>Position with Banc of America Preferred Funding Corporation</u> | <u>Principal Occupation</u> |
|-------------------|--|--|
| John J. Lawlor | Director and President | Managing Director, Municipal Markets and Public Sector Banking Executive of BofA Securities, Inc. and Bank of America, National Association |
| James Duffy | Managing Director | Director; MBAM BFO, The CFO Group of Bank of America, National Association |
| Michael I. Jentis | Managing Director | Managing Director, Head of Sales – Public Finance of BofA Securities, Inc. and Bank of America, National Association |
| Mona Payton | Managing Director | Managing Director, Municipal Markets Executive for Short-Term Trading of BofA Securities, Inc. and Bank of America, National Association |
| Edward J. Sisk | Director and Managing Director | Managing Director, Public Finance Executive of BofA Securities, Inc. and Bank of America, National Association |
| John B. Sprung | Director | Corporate Director |
| David A. Stephens | Director and Managing Director | Managing Director, Executive for Public Finance and Public Sector Credit Products of BofA Securities, Inc. and Bank of America, National Association |

SCHEDULE II

LITIGATION SCHEDULE

Bank of America Corporation and certain of its affiliates, including BofA Securities, Inc. ("BofA Securities," successor in interest to Merrill Lynch, Pierce, Fenner & Smith Incorporated) and Bank of America, N.A., have been involved in a number of civil proceedings and regulatory actions which concern matters arising in connection with the conduct of its business. Certain of such proceedings have resulted in findings of violations of federal or state securities laws. Such proceedings are reported and summarized in the BofA Securities Form BD as filed with the SEC, which descriptions are hereby incorporated by reference.

Schedule III

The following tables set forth all unreported transactions with respect to common stock effected by or on behalf of the Reporting Persons. All of their transactions were effectuated for cash.

COMMON STOCK

| <u>TRADE DATE</u> | <u>BUY/SELL</u> | <u>QUANTITY</u> | <u>PRICE</u> | <u>EXECUTION</u> |
|-------------------|-----------------|-----------------|--------------|------------------|
| 03/29/2012 | B | 100 | \$ 14.72 | OTC |
| 03/29/2012 | S | 100 | \$ 14.7189 | OTC |
| 04/27/2012 | B | 40 | \$ 15.24 | OTC |
| 05/08/2012 | S | 40 | \$ 15.62 | OTC |
| 01/30/2013 | B | 108 | \$ 16.1433 | OTC |
| 01/31/2013 | S | 108 | \$ 16.1243 | OTC |
| 03/08/2013 | S | 2,000 | \$ 16.0426 | OTC |
| 03/11/2013 | B | 1,330 | \$ 16.04 | OTC |
| 03/11/2013 | B | 670 | \$ 16.0066 | OTC |
| 03/11/2013 | S | 2,000 | \$ 16.0054 | OTC |
| 03/19/2013 | B | 200 | \$ 15.6 | OTC |
| 03/19/2013 | B | 400 | \$ 15.59 | OTC |
| 03/19/2013 | B | 1,400 | \$ 15.6573 | OTC |
| 03/21/2013 | S | 2,000 | \$ 15.654 | OTC |
| 03/21/2013 | B | 1,500 | \$ 15.6344 | OTC |
| 03/21/2013 | B | 300 | \$ 15.64 | OTC |
| 03/21/2013 | B | 100 | \$ 15.619 | OTC |
| 03/21/2013 | B | 100 | \$ 15.64 | OTC |
| 07/20/2016 | S | 3,450 | \$ 14.0 | OTC |
| 07/25/2016 | B | 200 | \$ 14.1 | NASDAQ |
| 07/25/2016 | B | 200 | \$ 14.1 | NASDAQ |
| 07/25/2016 | B | 100 | \$ 14.1 | NASDAQ |
| 07/25/2016 | B | 200 | \$ 14.1 | NASDAQ |
| 07/25/2016 | B | 100 | \$ 14.1 | NASDAQ |
| 07/25/2016 | B | 100 | \$ 14.1 | NASDAQ |
| 07/25/2016 | B | 100 | \$ 14.1 | NASDAQ |
| 07/25/2016 | B | 100 | \$ 14.09 | ARCA |
| 07/25/2016 | B | 200 | \$ 14.12 | EDGE X |
| 07/25/2016 | B | 100 | \$ 14.1 | OTC |
| 07/25/2016 | B | 300 | \$ 14.12 | EDGE X |
| 07/25/2016 | B | 200 | \$ 14.12 | EDGE X |
| 07/25/2016 | B | 100 | \$ 14.12 | EDGE X |
| 07/25/2016 | B | 200 | \$ 14.12 | EDGE X |
| 07/25/2016 | B | 200 | \$ 14.12 | EDGE X |
| 07/25/2016 | B | 200 | \$ 14.12 | EDGE X |
| 07/25/2016 | B | 100 | \$ 14.12 | EDGE X |
| 07/25/2016 | B | 100 | \$ 14.12 | EDGE X |
| 07/25/2016 | B | 100 | \$ 14.12 | EDGE X |
| 07/25/2016 | B | 100 | \$ 14.12 | EDGE X |
| 07/25/2016 | B | 50 | \$ 14.12 | NYSE |
| 07/25/2016 | B | 100 | \$ 14.12 | NYSE |
| 07/25/2016 | B | 100 | \$ 14.12 | NYSE |
| 07/25/2016 | B | 100 | \$ 14.11 | NYSE |
| 07/25/2016 | B | 100 | \$ 14.11 | NYSE |
| 11/15/2016 | S | 200 | \$ 11.9725 | OTC |
| 11/18/2016 | B | 200 | \$ 11.7924 | OTC |
| 09/06/2017 | B | 1,350 | \$ 11.683 | OTC |
| 09/06/2017 | S | 1,350 | \$ 11.631 | OTC |
| 06/05/2023 | B | 675 | \$ 7.74 | OTC |
| 06/05/2023 | S | 40 | \$ 7.75 | NYSE |
| 06/05/2023 | S | 20 | \$ 7.75 | NYSE |
| 06/05/2023 | S | 51 | \$ 7.75 | NASDAQ |
| 06/05/2023 | S | 200 | \$ 7.745 | OTC INTERNAL |
| 06/05/2023 | S | 26 | \$ 7.74 | EDGE X |
| 06/05/2023 | S | 47 | \$ 7.74 | NASDAQ |
| 06/05/2023 | S | 51 | \$ 7.74 | MIAX PEARL |
| 06/05/2023 | S | 37 | \$ 7.74 | BATS X |
| 06/05/2023 | S | 45 | \$ 7.74 | NYSE |
| 06/05/2023 | S | 2 | \$ 7.74 | NYSE |
| 06/05/2023 | S | 1 | \$ 7.74 | NYSE |
| 06/05/2023 | S | 5 | \$ 7.745 | AMEX |
| 06/05/2023 | S | 14 | \$ 7.745 | AMEX |
| 06/05/2023 | S | 35 | \$ 7.74 | NYSE |

| | | | | | |
|------------|---|----|----|------|------|
| 06/05/2023 | S | 35 | \$ | 7.75 | NYSE |
| 06/05/2023 | S | 66 | \$ | 7.75 | NYSE |

JOINT FILING AGREEMENT

Pursuant to and in accordance with the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), and the rules and regulations thereunder, each party hereto hereby agrees to the joint filing, on behalf of each of them, of any filing required by such party under Section 13 or Section 16 of the Exchange Act or any rule or regulation thereunder (including any amendment, restatement, supplement, and/or exhibit thereto) with the Securities and Exchange Commission (and, if such security is registered on a national securities exchange, also with the exchange), and further agrees to the filing, furnishing, and/or incorporation by reference of this agreement as an exhibit thereto. This agreement shall remain in full force and effect until revoked by any party hereto in a signed writing provided to each other party hereto, and then only with respect to such revoking party.

IN WITNESS WHEREOF, each party hereto, being duly authorized, has caused this agreement to be executed and effective as of the date set forth below.

Date: December 13, 2024

BANK OF AMERICA CORPORATION

By: /s/ Andres Ortiz
Name: Andres Ortiz
Title: Authorized Signatory

BANC OF AMERICA PREFERRED FUNDING CORPORATION

By: /s/ Andres Ortiz
Name: Andres Ortiz
Title: Authorized Signatory

BANK OF AMERICA CORPORATION

LIMITED POWER OF ATTORNEY

BANK OF AMERICA CORPORATION, a Delaware corporation (the "Corporation"), does hereby make, constitute, and appoint each of Marie Andre, Szabina Biro, Andres Ortiz Custodio, Kamil Dziejdzic, Valerie Ezeagbo, Kelvin Kwok, Frank Lui, James Todd, Ben Tsoi, Michelle Wong, and Monica Yake as an attorney-in-fact for the Corporation acting for the Corporation and in the Corporation's name, place and stead, for the Corporation's use and benefit, to bind the Corporation by their execution of those agreements, forms and documents related specifically to Section 13 and Section 16 of the Securities Exchange Act of 1934, and other large shareholder and short position regulatory reporting requirements in other jurisdictions.

Any documents executed by an attorney-in-fact in accordance with this Limited Power of Attorney shall fully bind and commit the Corporation and all other parties to such documents may rely upon the execution thereof by the attorney-in-fact as if executed by the Corporation and as the true and lawful act of the Corporation.

This Limited Power of Attorney shall automatically terminate as to the authority of Marie Andre, Szabina Biro, Andres Ortiz Custodio, Kamil Dziejdzic, Valerie Ezeagbo, Kelvin Kwok, Frank Lui, James Todd, Ben Tsoi, Michelle Wong, and Monica Yake upon the earlier of the date period of 12 months from the date hereof or the attorney-in-fact's resignation or termination from or transfer out of the Global Markets Non-Financial Regulatory Reporting Department; however, any such resignation, termination or transfer shall have no impact on any documents or instruments executed by any attorney-in-fact named above for the Corporation prior to such resignation, termination or transfer.

This Limited Power of Attorney shall revoke the Limited Power of Attorney executed by the Corporation on May 11, 2023; however, such revocation shall have no impact on any actions taken pursuant to that Power of Attorney.

IN WITNESS WHEREOF, this Power of Attorney has been executed and delivered by the Corporation to the Attorney-in-Fact on this 7th day of May, 2024.

BANK OF AMERICA CORPORATION

By: /s/ Ellen A. Perrin

Ellen A. Perrin

Associate General Counsel, Senior Vice President and Assistant Secretary

BANC OF AMERICA PREFERRED FUNDING CORPORATION

LIMITED POWER OF ATTORNEY

BANC OF AMERICA PREFERRED FUNDING CORPORATION, a Delaware corporation (the "Corporation"), does hereby make, constitute, and appoint each of Marie Andre, Andres Ortiz Custodio, Kamil Dziedzic, Valerie Ezeagbo, Kelvin Kwok, Frank Lui, James Todd, Ben Tsoi, Michelle Wong, and Monica Yako as an attorney-in-fact for the Corporation acting for the Corporation and in the Corporation's name, place and stead, for the Corporation's use and benefit, to bind the Corporation by their execution of those agreements, forms and documents related specifically to Section 13 and Section 16 of the Securities Exchange Act of 1934, and other large shareholder and short position regulatory reporting requirements in other jurisdictions.

Any documents executed by an attorney-in-fact in accordance with this Limited Power of Attorney shall fully bind and commit the Corporation and all other parties to such documents may rely upon the execution thereof by the attorney-in-fact as if executed by the Corporation and as the true and lawful act of the Corporation.

This Limited Power of Attorney shall automatically terminate as to the authority of Marie Andre, Andres Ortiz Custodio, Kamil Dziedzic, Valerie Ezeagbo, Kelvin Kwok, Frank Lui, James Todd, Ben Tsoi, Michelle Wong, and Monica Yako upon the earlier of the date period of 12 months from the date hereof or the attorney-in-fact's resignation or termination from or transfer out of the Global Markets Non-Financial Regulatory Reporting Department; however, any such resignation, termination or transfer shall have no impact on any documents or instruments executed by any attorney-in-fact named above for the Corporation prior to such resignation, termination or transfer.

IN WITNESS WHEREOF, this Power of Attorney has been executed and delivered by the Corporation to the Attorney-in-Fact on this 20th day of November, 2024.

BANC OF AMERICA PREFERRED FUNDING CORPORATION

/s/ David A. Stephens
David A. Stephens, Managing Director
