

BLACKROCK MUNIYIELD INVESTMENT FUND
 Form 5
 February 16, 2010

FORM 5

OMB APPROVAL

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

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).
 Form 3 Holdings Reported Form 4 Transactions Reported

ANNUAL STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person *
 UBS AG

2. Issuer Name and Ticker or Trading Symbol
 BLACKROCK MUNIYIELD INVESTMENT FUND [MYF]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)

3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year)
 12/31/2009

____ Director _____ 10% Owner
 ____ Officer (give title below) Other (specify below)
 Former 10% owner

BAHNHOFSTRASSE 45, PO BOX CH-8021

(Street)

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Reporting

(check applicable line)

ZURICH, V8

(City) (State) (Zip)

Form Filed by One Reporting Person
 Form Filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 5. Amount of Securities Beneficially Owned at end of Issuer's Fiscal Year (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|--|--|-----------------------------------|
| Auction Preferred Stock (3) | 07/31/2009 | | J | 155 D | \$ (4) 289 (2) | I | By subsidiary - see footnote (1) |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Amount or Number of Shares |
|--|--|--------------------------------------|--|--------------------------------|---|--|---|--|-------------------------------|
| | | | | | (A) (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares |

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|---|---------------|-----------|---------|------------------|
| | Director | 10% Owner | Officer | Other |
| UBS AG BAHNHOFSTRASSE 45 PO BOX CH-8021 ZURICH, V8 | Â | Â | Â | Former 10% owner |

Signatures

/s/ Anthony DeFilippis 02/16/2010
 **Signature of Reporting Person Date

/s/ Paul J. Sitarz 02/16/2010
 **Signature of Reporting Person Date

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 4(b)(v).
 - ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) This Statement is filed jointly by UBS AG for the benefit and on behalf of UBS Securities LLC and UBS Financial Services Inc., two-wholly owned subsidiaries of UBS AG to which UBS AG has delegated portions of its performance obligations with respect to the Auction Rate Securities Rights issued by UBS AG to certain clients and pursuant to which the securities reported herein have been purchased from such clients.
 - (2) Pursuant to the Global Relief Letter referred to below, this filing reports holdings of the Series of Auction Preferred Stock identified in Item 1 of this Table I on an aggregated basis.
 - (3) (CUSIP Nos.) 09254R203, 09254R302, 09254R401
 - (4) At Par

^

Remarks:

The Shares reported herein represent UBS AG's combined holdings in multiple series of auction preferred shares treated herein as one class of securities in accordance with the Auction Rate Securities -- Global Relief Letter" issued by the staff of the Securities and Exchange Commission (SEC) on September 1, 2009. The issuer undertakes to provide, upon request by the SEC staff, the issuer, or a security holder of the issue, the transaction(s) outlined above as required by the Global Relief Letter.

Note: File three copies of this Form, one of which must be manually signed. If space provided is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.