

BLACKROCK MUNIYIELD INVESTMENT FUND  
 Form 3  
 June 10, 2010

**FORM 3 UNITED STATES SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

OMB APPROVAL

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**INITIAL STATEMENT OF 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

(Print or Type Responses)

|                                                                                                                                                                                                      |                                                                        |                                                                                             |                                                                                                                                                                                                                                                                                |                                                      |                                                                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Name and Address of Reporting Person *<br>Å UBS AG<br><br>(Last) (First) (Middle)<br><br>BAHNHOFSTRASSE 45, Å PO<br>BOX CH-8021<br><br>(Street)<br><br>ZURICH, Å V8 Å<br><br>(City) (State) (Zip) | 2. Date of Event Requiring Statement<br>(Month/Day/Year)<br>05/31/2010 | 3. Issuer Name and Ticker or Trading Symbol<br>BLACKROCK MUNIYIELD INVESTMENT FUND<br>[MYF] | 4. Relationship of Reporting Person(s) to Issuer<br><br>(Check all applicable)<br><br><input type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner<br><input type="checkbox"/> Officer <input type="checkbox"/> Other<br>(give title below) (specify below) | 5. If Amendment, Date Original Filed(Month/Day/Year) | 6. Individual or Joint/Group Filing(Check Applicable Line)<br><input checked="" type="checkbox"/> Form filed by One Reporting Person<br><input type="checkbox"/> Form filed by More than One Reporting Person |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Table I - Non-Derivative Securities Beneficially Owned**

| 1. Title of Security<br>(Instr. 4)     | 2. Amount of Securities Beneficially Owned<br>(Instr. 4) | 3. Ownership Form:<br>Direct (D)<br>or Indirect (I)<br>(Instr. 5) | 4. Nature of Indirect Beneficial Ownership<br>(Instr. 5) |
|----------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------|
| Auction Preferred Stock <sup>(3)</sup> | 289 <sup>(2)</sup>                                       | I                                                                 | By subsidiary - see footnote <sup>(1)</sup>              |

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

SEC 1473 (7-02)

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**Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

| 1. Title of Derivative Security<br>(Instr. 4) | 2. Date Exercisable and Expiration Date<br>(Month/Day/Year) | 3. Title and Amount of Securities Underlying Derivative Security<br>(Instr. 4)<br>Title | 4. Conversion or Exercise Price of Derivative | 5. Ownership Form of Derivative Security: | 6. Nature of Indirect Beneficial Ownership<br>(Instr. 5) |
|-----------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------|----------------------------------------------------------|
|-----------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------|----------------------------------------------------------|

|                     |                    |                                  |          |                                                |
|---------------------|--------------------|----------------------------------|----------|------------------------------------------------|
| Date<br>Exercisable | Expiration<br>Date | Amount or<br>Number of<br>Shares | Security | Direct (D)<br>or Indirect<br>(I)<br>(Instr. 5) |
|---------------------|--------------------|----------------------------------|----------|------------------------------------------------|

## Reporting Owners

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

## Signatures

/s/ Anthony DeFilippis 06/10/2010  
 \*\*Signature of Reporting Person Date

/s/ Paul J. Sitarz 06/10/2010  
 \*\*Signature of Reporting Person Date

## Explanation of Responses:

- \* If the form is filed by more than one reporting person, see Instruction 5(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 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 No[s]. 09254R203, 09254R302, 09254R401)

### Remarks:

The Shares reported herein represent UBS AG's combined holdings in multiple series of auction preferred securities 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 number of securities identified in Table IA purchased and sold at each different price and date on which beneficial ownership exceeded ten percent and January 31, 2009, as required by the Global Relief Letter.

Note: File three copies of this Form, one of which must be manually signed. If space 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.