

BLACKROCK MUNIYIELD INVESTMENT FUND
Form N-Q
June 24, 2013

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM N-Q

**QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED
MANAGEMENT INVESTMENT COMPANY**

Investment Company Act file number 811-06502

Name of Fund: BlackRock MuniYield Investment Fund (MYF)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: John M. Perlowski, Chief Executive Officer, BlackRock MuniYield
Investment Fund, 55 East 52nd Street, New York, NY 10055

Registrant's telephone number, including area code: (800) 882-0052, Option 4

Date of fiscal year end: 07/31/2013

Date of reporting period: 04/30/2013

Item 1 – Schedule of Investments

BlackRock MuniYield Investment Fund (MYF)

Schedule of Investments April 30, 2013 (Unaudited)

(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Alabama — 2.6%		
Alabama Incentives Financing Authority, RB, Series A, 5.00%, 9/01/42	\$3,350	\$3,749,957
Birmingham Water Works Board, RB, Series B: 5.00%, 1/01/38	550	618,596
5.00%, 1/01/43	1,160	1,297,599
Courtland IDB, Refunding RB, International Paper Co. Projects, Series A, AMT, 5.20%, 6/01/25	1,000	1,050,980
Selma IDB, RB, International Paper Co. Project, Series A, 5.38%, 12/01/35	545	602,950
		7,320,082
Alaska — 0.6%		
Alaska Municipal Bond Bank Authority, RB, Series 1, 5.38%, 9/01/33	1,000	1,168,630
Northern Tobacco Securitization Corp., Refunding RB, Series A, 5.00%, 6/01/46	690	614,686
		1,783,316
California — 7.6%		
California Educational Facilities Authority, RB, University of Southern California, Series A, 5.25%, 10/01/38	2,740	3,205,142
California Health Facilities Financing Authority, RB, Sutter Health, Series B, 6.00%, 8/15/42	1,645	2,034,947
California Health Facilities Financing Authority, Refunding RB, Catholic Healthcare West, Series A, 6.00%, 7/01/39	710	852,575
City of San Jose California, Refunding ARB, Series A-1, AMT, 5.50%, 3/01/30	1,500	1,716,135
Grossmont Union High School District, GO, Election of 2008, Series B, 4.75%, 8/01/45	2,605	2,839,737
Los Angeles Department of Water & Power, RB, Power System, Sub-Series A-1, 5.25%, 7/01/38	3,600	4,118,544
San Diego Regional Building Authority California, RB, County Operations Center & Annex, Series A, 5.38%, 2/01/36	1,310	1,522,089
State of California, GO, Various Purpose: 6.00%, 3/01/33	2,535	3,119,698
5.00%, 4/01/37	2,000	2,274,700
		21,683,567
Colorado — 0.3%		
City & County of Denver Colorado, Refunding ARB, Airport System, Series B, 5.00%, 11/15/37	900	1,022,778
Municipal Bonds		
	Par (000)	Value
Florida — 5.2%		
City of Jacksonville Florida, Refunding RB, Better Jacksonville, Series A, 5.00%, 10/01/30	\$1,120	\$1,294,630
County of Escambia Florida, Refunding RB, International Paper Corp. Projects, Series B, AMT, 5.00%, 8/01/26	600	601,920
County of Lee Florida, Refunding ARB, Series A, AMT, 5.38%, 10/01/32	2,000	2,230,420
Hillsborough County IDA, RB, National Gypsum Co., AMT: Series A, 7.13%, 4/01/30	2,500	2,507,900
Series B, 7.13%, 4/01/30	2,290	2,291,191

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Jacksonville Florida Port Authority, Refunding RB, AMT, 5.00%, 11/01/38	225	244,683
JEA Florida Electric System, Refunding RB, Sub-Series C, 5.00%, 10/01/37 (a)	3,390	3,853,244
Manatee County Housing Finance Authority, RB, Series A, AMT (Ginnie Mae), 5.90%, 9/01/40	420	457,279
Tampa-Hillsborough County Florida Expressway Authority, Refunding RB, Series B, 5.00%, 7/01/42	1,200	1,337,100
		14,818,367
Georgia — 0.4%		
Municipal Electric Authority of Georgia, Refunding RB, Project One, Sub-Series D, 6.00%, 1/01/23	880	1,074,832
Illinois — 11.2%		
Chicago Illinois Board of Education, GO, Series A, 5.50%, 12/01/39	1,815	2,072,022
Chicago Illinois Transit Authority, RB, Sales Tax Receipts Revenue: 5.25%, 12/01/36	615	705,497
5.25%, 12/01/40	2,060	2,356,496
City of Chicago Illinois, GARB, O'Hare International Airport, Third Lien, Series C, 6.50%, 1/01/41	6,065	7,856,298
City of Chicago Illinois, Refunding RB, Sales Tax, Series A, 5.25%, 1/01/38	765	879,750
Cook County Forest Preserve District, GO, Series C, 5.00%, 12/15/32	570	652,559
Cook County Forest Preserve District, GO, Refunding, Limited Tax Project, Series B, 5.00%, 12/15/32	265	303,383
Illinois Finance Authority, RB, Carle Foundation, Series A, 6.00%, 8/15/41	4,000	4,796,920
Illinois Finance Authority, Refunding RB: Central DuPage Health, Series B, 5.38%, 11/01/39	1,200	1,371,744
Northwestern Memorial Healthcare, 5.00%, 8/15/37	450	514,251

BLACKROCK MUNIYIELD INVESTMENT FUND APRIL 30, 2013 1

BlackRock MuniYield Investment Fund (MYF)

Schedule of Investments (continued)

(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Illinois (concluded)		
Illinois Finance Authority, Refunding RB (concluded):		
Northwestern Memorial Hospital, Series A, 6.00%, 8/15/39	\$4,160	\$4,933,385
Illinois State Toll Highway Authority, RB, Series A, 5.00%, 1/01/38 (a)	1,480	1,673,688
Metropolitan Pier & Exposition Authority, Refunding RB, McCormick Place Project, Series B, 5.00%, 12/15/28	1,310	1,523,425
Railsplitter Tobacco Settlement Authority, RB:		
5.50%, 6/01/23	1,370	1,674,441
6.00%, 6/01/28	390	476,264
		31,790,123
Indiana — 3.5%		
Indiana State Finance Authority, RB, Private Activity Ohio River Bridge East End Crossing Project, AMT, 5.00%, 7/01/44	555	589,049
Indiana Municipal Power Agency, RB, Series B, 6.00%, 1/01/39	4,525	5,375,564
Indianapolis Local Public Improvement Bond Bank, RB, Series F, 5.25%, 2/01/36	3,360	3,884,362
		9,848,975
Kansas — 2.2%		
Kansas Development Finance Authority, Refunding RB, Adventist Health System/Sunbelt Obligated Group:		
Series A, 5.00%, 11/15/32	2,000	2,306,120
Series C, 5.50%, 11/15/29	3,275	3,838,595
		6,144,715
Kentucky — 1.1%		
Kentucky Economic Development Finance Authority, RB, Owensboro Medical Health System, Series A, 6.38%, 6/01/40	1,300	1,555,242
Louisville & Jefferson County Metropolitan Government Parking Authority, RB, Series A, 5.75%, 12/01/34	1,200	1,462,308
		3,017,550
Louisiana — 0.8%		
Louisiana Local Government Environmental Facilities & Community Development Authority, RB, Series A-1, 6.50%, 11/01/35	1,420	1,703,120
Municipal Bonds	Par (000)	Value
Louisiana (concluded)		
Louisiana State University & Agricultural & Mechanical College, RB, 5.00%, 7/01/37	\$450	\$513,522
		2,216,642
Maine — 1.1%		
Maine Health & Higher Educational Facilities Authority, RB, Maine General Medical Center, 7.50%, 7/01/32	2,500	3,202,975
Massachusetts — 2.8%		
Massachusetts Development Finance Agency, RB, Wellesley College, Series J, 5.00%, 7/01/42	660	766,253
Massachusetts HFA, Refunding HRB, AMT:		

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Series B, 5.50%, 6/01/41	3,000	3,250,170
Series C, 5.35%, 12/01/42	1,630	1,761,085
Series F, 5.70%, 6/01/40	2,010	2,166,961
		7,944,469
Michigan — 2.2%		
Lansing Board of Water & Light Utilities System, RB, Series A, 5.50%, 7/01/41	1,805	2,135,459
Michigan State Building Authority, Refunding RB, Series I, 6.00%, 10/15/38	1,250	1,499,525
Royal Oak Hospital Finance Authority Michigan, Refunding RB, William Beaumont Hospital, 8.25%, 9/01/39	1,970	2,523,905
		6,158,889
Mississippi — 1.8%		
Mississippi Development Bank, Refunding RB:		
Jackson Public School District Project, Series A, 5.00%, 4/01/28	1,500	1,711,455
Jacksonville Mississippi Water & Sewer System Project, Series A (AGM), 5.00%, 9/01/30	3,010	3,496,898
		5,208,353
Nevada — 2.6%		
City of Las Vegas Nevada, GO, Limited Tax, Performing Arts Center, 6.00%, 4/01/34	2,850	3,327,318
County of Clark Nevada, RB, Series B, 5.75%, 7/01/42	3,375	3,965,524
		7,292,842
New Jersey — 2.9%		
New Jersey EDA, Refunding RB, New Jersey American Water Co., Inc. Project, Series A, AMT, 5.70%, 10/01/39	2,250	2,512,035

BLACKROCK MUNIYIELD INVESTMENT FUND APRIL 30, 2013 2

BlackRock MuniYield Investment Fund (MYF)

Schedule of Investments (continued)

(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
New Jersey (concluded)		
New Jersey State Turnpike Authority, RB, Series A, 5.00%, 1/01/38	\$750	\$840,683
New Jersey Transportation Trust Fund Authority, RB, Transportation System, Series A: 5.88%, 12/15/38	2,670	3,156,073
5.00%, 6/15/42	1,645	1,826,756
		8,335,547
New York — 2.3%		
New York Liberty Development Corp., Refunding RB, Second Priority, Bank of America Tower at One Bryant Park Project, 6.38%, 7/15/49	1,200	1,434,708
New York State Dormitory Authority, RB, Series B: 5.00%, 3/15/37	1,870	2,145,320
5.00%, 3/15/42	1,500	1,712,100
New York State Thruway Authority, Refunding RB, Series I, 5.00%, 1/01/37	1,030	1,161,871
		6,453,999
North Carolina — 0.8%		
North Carolina Medical Care Commission, RB, Duke University Health System, Series A, 5.00%, 6/01/32	2,010	2,351,981
Ohio — 0.8%		
The Ohio State University, RB, General Receipts Special Purpose, Series A, 5.00%, 6/01/38	2,080	2,412,197
Pennsylvania — 3.8%		
Pennsylvania Economic Development Financing Authority, RB, American Water Co. Project, 6.20%, 4/01/39	1,075	1,250,139
Pennsylvania Turnpike Commission, RB: Motor License Fund, Enhanced Turnpike, Sub-Series A, 5.00%, 12/01/33	1,670	1,898,690
Motor License Fund, Enhanced Turnpike, Sub-Series A, 5.00%, 12/01/36	565	640,885
Motor License Fund, Enhanced Turnpike, Sub-Series A, 5.00%, 12/01/38	645	724,870
Sub-Series A, 5.63%, 12/01/31	2,455	2,871,123
Sub-Series A, 6.00%, 12/01/41	3,000	3,408,090
		10,793,797
Municipal Bonds	Par (000)	Value
Puerto Rico — 0.4%		
Puerto Rico Sales Tax Financing Corp., RB, First Sub-Series A, 6.00%, 8/01/42	\$1,000	\$1,094,560
South Carolina — 1.4%		
Charleston South Carolina Educational Excellence Finance Corp., Refunding RB, Charleston County School District (a): 5.00%, 12/01/29	1,560	1,853,608
5.00%, 12/01/30	1,780	2,104,351
		3,957,959

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Texas — 8.8%

Central Texas Regional Mobility Authority, Refunding RB, Senior Lien:		
5.75%, 1/01/31	1,000	1,169,930
6.00%, 1/01/41	2,600	3,037,580
Series A, 5.00%, 1/01/33 (a)	425	468,456
City of Brownsville Texas Utilities System, Refunding RB, Series A, 5.00%, 9/01/29 (a)	1,230	1,438,903
City of Houston Texas, GO, Refunding, Public Improvement, Series A, 5.00%, 3/01/38 (a)	785	907,704
City of Houston Texas, Refunding RB, Utility System, First Lien, Series D, 5.00%, 11/15/42	1,500	1,717,830
Conroe ISD Texas, GO, School Building, Series A, 5.75%, 2/15/35	1,800	2,131,110
Dallas-Fort Worth International Airport, ARB, Series H, AMT, 5.00%, 11/01/42	2,000	2,126,640
Harris County Health Facilities Development Corp., Refunding RB, Memorial Hermann Healthcare System, Series B, 7.25%, 12/01/18 (b)	800	1,069,984
Houston Texas Community College System, GO, Limited Tax, 5.00%, 2/15/36	785	913,253
North Texas Tollway Authority, Refunding RB, First Tier:		
Series B, 5.00%, 1/01/42	1,500	1,666,935
Series K-1 (AGC), 5.75%, 1/01/38	1,000	1,150,220
Tarrant County Cultural Education Facilities Finance Corp., RB, Scott & White Healthcare, 6.00%, 8/15/45	3,795	4,549,218
Texas Private Activity Bond Surface Transportation Corp., RB, Senior Lien, NTE Mobility Partners LLC, North Tarrant Express Managed Lanes Project, 6.88%, 12/31/39	1,700	2,044,012

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BlackRock MuniYield Investment Fund (MYF)

Schedule of Investments (continued)

(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Texas (concluded)		
Texas Transportation Commission, Refunding RB, Central Texas Turnpike System, First Tier, Series A, 5.00%, 8/15/41	\$660	\$719,321
		25,111,096
Utah — 0.6%		
Utah State Transit Authority, Refunding RB, Sales Tax Revenue, 5.00%, 6/15/42	1,500	1,696,935
Virginia — 2.1%		
Fairfax County IDA, RB, Inova Health System Project, Series A, 5.00%, 5/15/40	1,035	1,181,121
Virginia Public School Authority, RB, School Financing, 6.50%, 12/01/18 (b)	1,500	1,963,365
Virginia Small Business Financing Authority, RB, Senior Lien, Elizabeth River Crossing OPCO LLC Project, AMT, 6.00%, 1/01/37	2,440	2,809,123
		5,953,609
Wisconsin — 2.3%		
Wisconsin Health & Educational Facilities Authority, RB, Ascension Health, Series D, 5.00%, 11/15/41	1,840	2,072,613
Wisconsin Health & Educational Facilities Authority, Refunding RB, Froedtert Health, Inc.: 5.25%, 4/01/39	3,470	3,850,728
Series A, 5.00%, 4/01/42	470	524,544
		6,447,885
Total Municipal Bonds – 72.2%		205,138,040
Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts (c)		
California — 16.2%		
Bay Area Toll Authority, Refunding RB, San Francisco Bay Area, Series F-1, 5.63%, 4/01/44	2,680	3,097,083
California Educational Facilities Authority, RB, University of Southern California, Series A, 5.25%, 10/01/39 (d)	4,200	4,880,106
Grossmont Union High School District, GO, Election of 2008, Series B, 5.00%, 8/01/40	6,000	6,722,700
Los Angeles Community College District California, GO, Series C, 5.25%, 8/01/39 (d)	5,250	6,319,425
Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts (c)	Par (000)	Value
California (concluded)		
Los Angeles Community College District California, GO, Refunding, Series A, 6.00%, 8/01/33	\$7,697	\$9,527,992
Los Angeles Unified School District California, GO, Series I, 5.00%, 1/01/34	790	906,399
San Diego Public Facilities Financing Authority, Refunding RB, Series B, 5.50%, 8/01/39	8,412	9,837,811
University of California, RB, Series O, 5.75%, 5/15/34	3,000	3,614,590
University of California, Refunding RB, 5.00%, 5/15/37	1,000	1,148,845
		46,054,951
Colorado — 0.9%		

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Colorado Health Facilities Authority, Refunding RB, Catholic Healthcare, Series A, 5.50%, 7/01/34 (d)	2,149	2,507,963
District of Columbia — 2.6%		
District of Columbia, RB, Series A, 5.50%, 12/01/30 (d)	2,805	3,421,221
District of Columbia Water & Sewer Authority, Refunding RB, Series A, 5.50%, 10/01/39	3,507	4,098,636
		7,519,857
Florida — 2.3%		
County of Miami-Dade Florida, Refunding RB, Transit System, Sales Surtax, 5.00%, 7/01/42	980	1,104,235
Hillsborough County Aviation Authority, RB, Series A, AMT (AGC), 5.50%, 10/01/38	3,869	4,416,951
Lee County Housing Finance Authority, RB, Multi-County Program, Series A-2, AMT (Ginnie Mae), 6.00%, 9/01/40	840	886,074
		6,407,260
Illinois — 3.6%		
City of Chicago Illinois, Refunding RB, Water System, Second Lien, 5.00%, 11/01/42	1,559	1,765,899
Illinois Finance Authority, RB, University of Chicago, Series B, 6.25%, 7/01/38	5,300	6,520,961
Illinois State Toll Highway Authority, RB, Series B, 5.50%, 1/01/33	1,750	1,983,776
		10,270,636
Massachusetts — 1.2%		
Massachusetts School Building Authority, RB, Sales Tax, Senior Series B, 5.00%, 10/15/41	2,950	3,404,506
BLACKROCK MUNIYIELD INVESTMENT FUND APRIL 30, 2013 4		

BlackRock MuniYield Investment Fund (MYF)

Schedule of Investments (continued)

(Percentages shown are based on Net Assets)

Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts (c)	Par (000)	Value
Nevada — 7.1%		
Clark County Water Reclamation District, GO:		
Limited Tax, 6.00%, 7/01/38	\$5,000	\$6,010,200
Series B, 5.50%, 7/01/29	5,668	6,924,966
Las Vegas Valley Water District, GO, Refunding, 5.00%, 6/01/28	6,070	7,092,370
		20,027,536
New Hampshire — 0.9%		
New Hampshire Health & Education Facilities Authority, RB, Dartmouth College, 5.25%, 6/01/39 (d)		
	2,159	2,526,761
New Jersey — 2.9%		
New Jersey State Housing & Mortgage Finance Agency, RB, S/F Housing, Series CC, 5.25%, 10/01/29		
	2,251	2,494,960
New Jersey Transportation Trust Fund Authority, RB, Transportation System:		
Series A (AGM), 5.00%, 12/15/32	4,000	4,526,440
Series B, 5.25%, 6/15/36	1,000	1,142,540
		8,163,940
New York — 11.8%		
Hudson New York Yards Infrastructure Corp., RB, Senior Series A, 5.75%, 2/15/47		
	1,290	1,531,418
New York City Municipal Water Finance Authority, Refunding RB:		
Second General Resolution, Fiscal Year 2012, Series BB, 5.25%, 6/15/44	4,408	5,062,974
Series FF, 5.00%, 6/15/45	3,859	4,368,650
Series FF-2, 5.50%, 6/15/40	2,504	2,955,756
New York City Transitional Finance Authority, BARB, Fiscal 2009, Series S-3, 5.25%, 1/15/39	2,499	2,885,999
New York City Transitional Finance Authority, RB, Sub-Series E-1, 5.00%, 2/01/42	1,720	1,959,868
New York Liberty Development Corp., RB, 1 World Trade Center Port Authority Construction, 5.25%, 12/15/43	4,365	5,013,221
New York Liberty Development Corp., Refunding RB, 4 World Trade Center Project, 5.75%, 11/15/51	2,560	3,036,058
New York State Dormitory Authority, ERB, Series B, 5.25%, 3/15/38	5,700	6,625,737
		33,439,681
Ohio — 1.2%		
County of Allen Ohio, Refunding RB, Catholic Healthcare, Series A, 5.25%, 6/01/38	3,120	3,503,635
Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts (c)		
Puerto Rico — 0.7%		
Puerto Rico Sales Tax Financing Corp., Refunding RB, Series C, 5.25%, 8/01/40	\$1,750	\$1,896,002
South Carolina — 1.3%		
South Carolina State Public Service Authority, Refunding RB, Santee Cooper, Series A, 5.50%, 1/01/38 (d)	3,240	3,732,221
Texas — 6.5%		
City of San Antonio Texas, Refunding RB, Series A, 5.25%, 2/01/31 (d)	3,989	4,692,517

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Harris County Cultural Education Facilities Finance Corp., RB, Hospital, Texas Children's Hospital Project, 5.50%, 10/01/39	5,400	6,343,812
North Texas Tollway Authority, RB, Special Projects, System, Series A, 5.50%, 9/01/41	3,480	4,137,093
Waco Educational Finance Corp., Refunding RB, Baylor University, 5.00%, 3/01/43	3,000	3,378,210
		18,551,632
Utah — 0.8%		
City of Riverton Utah Hospital, RB, IHC Health Services, Inc., 5.00%, 8/15/41	1,995	2,242,806
Virginia — 0.7%		
Fairfax County IDA Virginia, Refunding RB, Health Care, Inova Health System, Series A, 5.50%, 5/15/35	1,749	2,014,838
Washington — 1.1%		
University of Washington, Refunding RB, Series A, 5.00%, 7/01/41	2,744	3,181,501
Total Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts – 61.8%		175,445,726
Total Long-Term Investments (Cost – \$339,994,006) – 134.0%		380,583,766
		Shares
Short-Term Securities		
FFI Institutional Tax-Exempt Fund, 0.03% (e)(f)	2,566,957	2,566,957
Total Short-Term Securities (Cost – \$2,566,957) – 0.9%		2,566,957

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BlackRock MuniYield Investment Fund (MYF)

Schedule of Investments (continued)

(Percentages shown are based on Net Assets)

	Value
Total Investments (Cost - \$342,560,963*) – 134.9%	\$ 383,150,723
Other Assets Less Liabilities – 16.7%	47,601,993
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable – (30.7)%	(87,295,331)
VRDP Shares, at Liquidation Value – (20.9)%	(59,400,000)
Net Assets Applicable to Common Shares– 100.0%	\$ 284,057,385

* As of April 30, 2013, gross unrealized appreciation and gross unrealized depreciation based on cost for federal income tax purposes were as follows:

Tax cost	\$ 256,322,278
Gross unrealized appreciation	\$ 40,725,294
Gross unrealized depreciation	(1,150,721)
Net unrealized appreciation	\$ 39,574,573

Notes to Schedule of Investments

(a) When-issued security. Unsettled when-issued transactions were as follows:

Counterparty	Value	Unrealized Appreciation
Apex Pryor Securities	\$ 907,704	\$ 9,028
Jefferies & Co.	\$ 1,438,903	\$ 8,684
JPMorgan Chase & Co.	\$ 2,142,144	\$ 21,998
Wells Fargo & Co.	\$ 7,811,203	\$ 74,085

(b) US government securities, held in escrow, are used to pay interest on this security, as well as to retire the bond in full at the date indicated, typically at a premium to par.

(c) Securities represent bonds transferred to a TOB in exchange for which the Fund acquired residual interest certificates. These securities serve as collateral in a financing transaction.

All or a portion of security is subject to a recourse agreement, which may require the Fund to pay the liquidity provider in the event there is a shortfall between the TOB trust certificates and proceeds received from the sale of the security contributed to the TOB trust. In the case of a shortfall, the aggregate maximum potential amount the Fund could ultimately be required to pay under the agreements, which expire from 10/01/16 to 6/15/19, is \$16,056,849.

(e) Investments in issuers considered to be an affiliate of the Fund during the period ended April 30, 2013, for purposes of Section 2(a)(3) of the 1940 Act, were as follows:

Affiliate	Shares Held at July 31, 2012	Net Activity	Shares Held at April 30, 2013	Income
FFI Institutional Tax-Exempt Fund...	176,582	2,390,375	2,566,957	\$ 266

(f) Represents the current yield as of report date.

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Schedule of Investments (continued) **BlackRock MuniYield Investment Fund (MYF)**

Portfolio Abbreviations

To simplify the listings of portfolio holdings in the Schedule of Investments, the names and descriptions of many of the securities have been abbreviated according to the following list:

AGC	Assured Guaranty Corp.
AGM	Assured Guaranty Municipal Corp.
AMT	Alternative Minimum Tax (subject to)
ARB	Airport Revenue Bonds
BARB	Building Aid Revenue Bonds
EDA	Economic Development Authority
ERB	Education Revenue Bonds
GARB	General Airport Revenue Bonds
Ginnie Mae	Government National Mortgage Association
GO	General Obligation Bonds
HFA	Housing Finance Agency
HRB	Housing Revenue Bonds
IDA	Industrial Development Authority
IDB	Industrial Development Board
ISD	Independent School District
RB	Revenue Bonds
S/F	Single-Family

Financial futures contracts as of April 30, 2013 were as follows:

Contracts Sold	Issue	Exchange	Expiration	Notional Value	Unrealized Depreciation
(207)	10-Year US Treasury Note	Chicago Board of Trade	June 2013	\$ 27,605,391	\$ (280,215)

Fair Value Measurements - Various inputs are used in determining the fair value of investments and derivative financial instruments. These inputs to valuation techniques are categorized into a disclosure hierarchy consisting of three broad levels for financial reporting purposes as follows:

- Level 1 — unadjusted price quotations in active markets/exchanges for identical assets and liabilities that the Fund has the ability to access
- Level 2 — other observable inputs (including, but not limited to, quoted prices for similar assets or liabilities in markets that are active, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the assets or liabilities (such as interest rates, yield curves, volatilities,

prepayment speeds, loss severities, credit risks and default rates) or other market-corroborated inputs)

Level 3 — unobservable inputs based on the best information available in the circumstances, to the extent observable inputs are not available (including the Fund's own assumptions used in determining the fair value of investments and derivative financial instruments)

The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). Accordingly, the degree of judgment exercised in determining fair value is greatest for instruments categorized in Level 3. The inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, for disclosure purposes, the level in the fair value hierarchy within which the fair value measurement falls in its entirety is determined based on the lowest level input that is significant to the fair value measurement in its entirety.

Changes in valuation techniques may result in transfers into or out of an assigned level within the disclosure hierarchy. In accordance with the Fund's policy, transfers between different levels of the fair value disclosure hierarchy are deemed to have occurred as of the beginning of the reporting period. The categorization of a value determined for investments and derivative financial instruments is based on the pricing transparency of the investment and derivative financial instrument and is not necessarily an indication of the risks associated with investing in those securities. For information about the Fund's policy regarding valuation of investments and derivative financial instruments and other significant accounting policies, please refer to the Fund's most recent financial statements as contained in its semi-annual report.

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Schedule of Investments (concluded) **BlackRock MuniYield Investment Fund (MYF)**

The following tables summarize the Fund's investments and derivative financial instruments categorized in the disclosure hierarchy as of April 30, 2013:

	Level 1	Level 2	Level 3	Total
Assets:				
Investments:				
Long-Term Investments ¹	—	\$380,583,766	—	\$380,583,766
Short-Term Securities	\$2,566,957	—	—	2,566,957
Total	\$2,566,957	\$380,583,766	—	\$383,150,723

¹ See above Schedule of Investments for values in each state or political subdivision.

	Level 1	Level 2	Level 3	Total
Derivative Financial Instruments ²				
Liabilities:				
Interest rate contracts	\$(280,215)	—	—	\$(280,215)

² Derivative financial instruments are financial futures contracts, which are valued at the unrealized appreciation/depreciation on the instrument.

Certain of the Fund's assets and liabilities are held at carrying amount, which approximates fair value for financial reporting purposes. As of April 30, 2013, such assets and liabilities are categorized within the disclosure hierarchy as follows:

Level 1	Level 3
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	Level 2		Total
Assets:			
Cash pledged for financial	\$274,000	—	\$274,000
futures contracts			
Liabilities:			
TOB trust certificates	—	\$(87,253,872)	(87,253,872)
VRDP shares	—	(59,400,000)	(59,400,000)
Total	\$274,000	\$(146,653,872)	\$(146,379,872)

There were no transfers between levels during the period ended April 30, 2013.

BLACKROCK MUNIYIELD INVESTMENT FUND APRIL 30, 2013 8

Item 2 – Controls and Procedures

2(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)) are effective as of a date within 90 days of the filing of this report based on the evaluation of these controls and procedures required by Rule 30a-3(b) under the 1940 Act and Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended.

2(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) that occurred during the registrant's last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the registrant's internal control over financial reporting.

Item 3 – Exhibits

Certifications – Attached hereto

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.

BlackRock MuniYield Investment Fund

By: /s/ John M. Perlowski

John M. Perlowski

Chief Executive Officer (principal executive officer) of

BlackRock MuniYield Investment Fund

Date: June 24, 2013

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: /s/ John M. Perlowski

John M. Perlowski

Chief Executive Officer (principal executive officer) of

BlackRock MuniYield Investment Fund

Date: June 24, 2013

By: /s/ Neal J. Andrews

Neal J. Andrews

Chief Financial Officer (principal financial officer) of

BlackRock MuniYield Investment Fund

Date: June 24, 2013