

BLACKROCK MUNIYIELD INVESTMENT FUND
Form N-Q
June 22, 2016

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: 07/31/2016

Date of reporting period: 04/30/2016

Item 1 Schedule of Investments

Schedule of Investments April 30, 2016 (Unaudited)

BlackRock MuniYield Investment Fund
(MYF)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
Alabama 0.3%		
City of Selma Alabama IDB, RB, Gulf Opportunity Zone, International Paper Co. Project, Series A, 5.38%, 12/01/35	\$ 545	\$ 607,566
Alaska 0.8%		
Alaska Municipal Bond Bank Authority, RB:		
5.75%, 9/01/18 (a)	975	1,087,232
5.75%, 9/01/33	25	27,628
Northern Tobacco Securitization Corp., Refunding RB, Tobacco Settlement, Asset-Backed, Series A, 5.00%, 6/01/46	690	645,550
		1,760,410
California 13.1%		
California Educational Facilities Authority, RB, University of Southern California, Series A, 5.25%, 10/01/38	2,740	3,026,659
California Health Facilities Financing Authority, RB, Sutter Health, Series B, 6.00%, 8/15/42	1,645	1,976,040
California Health Facilities Financing Authority, Refunding RB, Catholic Healthcare West, Series A, 6.00%, 7/01/39	710	811,693
California Statewide Communities Development Authority, RB, Loma Linda University Medical Center, Series A (b)(c):		
5.00%, 12/01/41	330	359,090
5.00%, 12/01/46	405	440,348
City & County of San Francisco California Airports Commission, Refunding ARB, AMT, Series A:		
2nd, 5.50%, 5/01/28	1,065	1,298,725
2nd, 5.25%, 5/01/33	830	969,457
5.00%, 5/01/44	1,275	1,443,644
City of Los Angeles California Department of Water & Power, RB, Power System, Sub-Series A-1, 5.25%, 7/01/38	2,000	2,182,620
City of San Jose California, Refunding ARB, Series A-1, AMT, 5.50%, 3/01/30	1,500	1,749,255
Kern Community College District, GO, Safety, Repair & Improvement, Series C, 5.50%, 11/01/33	1,620	2,044,246
	Par	
	(000)	Value
Municipal Bonds		
California (continued)		
San Diego Regional Building Authority, RB, County Operations Center & Annex, Series A, 5.38%, 2/01/19 (a)	\$ 1,310	\$ 1,472,099
State of California, GO, Various Purposes, 6.00%, 3/01/33	2,535	3,013,253
State of California Public Works Board, LRB, Various Capital Projects, Series I, 5.50%, 11/01/31	1,000	1,242,020
State of California Public Works Board, RB, Department of Corrections & Rehabilitation, Series F, 5.25%, 9/01/33	835	1,023,184
Township of Washington California Health Care District, GO, Election of 2004, Series B, 5.50%, 8/01/40	625	760,412
University of California, Refunding RB, Regents of the University of California Medical Center Pooled Revenue, Series J, 5.25%, 5/15/38	3,730	4,488,906
		28,301,651
Colorado 0.9%		
City & County of Denver Colorado Airport System, ARB, Series A, AMT:		
5.50%, 11/15/28	1,000	1,196,650
5.50%, 11/15/30	330	392,746
5.50%, 11/15/31	400	474,780
		2,064,176
Delaware 0.3%		
County of Sussex Delaware, RB, NRG Energy, Inc., Indian River Power LLC Project, 6.00%, 10/01/40	500	546,790
Florida 6.6%		
City of Jacksonville Florida, Refunding RB, Series A, 5.25%, 10/01/33	675	821,448
County of Broward Florida Airport System Revenue, ARB, Series A, AMT, 5.00%, 10/01/45	985	1,123,915

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County of Hillsborough Florida Aviation Authority, Refunding ARB, Tampa International Airport, Series A, AMT, 5.50%, 10/01/29	1,995	2,374,289
County of Lee Florida, Refunding ARB, Series A, AMT, 5.38%, 10/01/32	2,000	2,300,840

BLACKROCK MUNIYIELD INVESTMENT FUND

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Schedule of Investments (continued)

BlackRock MuniYield Investment Fund
(MYF)

	Par	
	(000)	Value
Municipal Bonds		
Florida (continued)		
County of Lee Florida Housing Finance Authority, RB, S/F Housing, Multi-County Program, Series A-2, AMT (Ginnie Mae), 6.00%, 9/01/40	\$ 290	\$ 297,137
County of Manatee Florida Housing Finance Authority, RB, S/F Housing, Series A, AMT (Ginnie Mae, Fannie Mae & Freddie Mac), 5.90%, 9/01/40	240	243,852
County of Miami-Dade Florida, RB, Seaport: Series A, 5.38%, 10/01/33	1,170	1,360,827
Series B, AMT, 6.25%, 10/01/38	525	657,200
Series B, AMT, 6.00%, 10/01/42	700	842,919
County of Miami-Dade Florida Aviation, Refunding ARB, Series A, AMT, 5.00%, 10/01/31	2,440	2,804,731
Reedy Creek Improvement District, GO, Series A, 5.25%, 6/01/32	1,200	1,438,992
		14,266,150
Georgia 0.4%		
Municipal Electric Authority of Georgia, Refunding RB, Project One, Sub-Series D, 6.00%, 1/01/23	880	979,669
Hawaii 1.2%		
State of Hawaii, Department of Transportation, COP, AMT: 5.25%, 8/01/25	485	583,896
5.25%, 8/01/26	525	628,940
State of Hawaii, Department of Transportation, RB, Series A, AMT, 5.00%, 7/01/45	1,135	1,291,403
		2,504,239
Illinois 14.6%		
City of Chicago Illinois, GARB, O Hare International Airport, 3rd Lien, Series C, 6.50%, 1/01/41	6,065	7,354,904
City of Chicago Illinois Midway International Airport, Refunding GARB, 2nd Lien, Series A, 5.00%, 1/01/41	1,000	1,115,790
City of Chicago Illinois Transit Authority, RB, Sales Tax Receipts: 5.25%, 12/01/36	1,000	1,100,900
5.25%, 12/01/40	1,000	1,092,350
	Par	
Municipal Bonds		
Illinois (continued)		
County of Cook Illinois Community College District No. 508, GO, City College of Chicago: 5.50%, 12/01/38	\$ 2,000	\$ 2,273,060
5.25%, 12/01/43	1,500	1,666,185
Illinois Finance Authority, RB, Carle Foundation, Series A, 6.00%, 8/15/41	4,000	4,746,800
Illinois Finance Authority, Refunding RB: Central DuPage Health, Series B, 5.38%, 11/01/39	1,200	1,360,416
Northwestern Memorial Hospital, Series A, 6.00%, 8/15/39	4,160	4,817,655
Railsplitter Tobacco Settlement Authority, RB: 5.50%, 6/01/23	1,370	1,615,312
6.00%, 6/01/28	390	466,054
State of Illinois, GO: 5.25%, 2/01/32	2,200	2,404,688
5.50%, 7/01/33	1,000	1,103,150
5.50%, 7/01/38	415	453,458
		31,570,722
Indiana 3.1%		
City of Valparaiso Indiana, RB, Exempt Facilities, Pratt Paper LLC Project, AMT, 6.75%, 1/01/34	1,350	1,655,127
Indiana Municipal Power Agency, RB, Series B, 6.00%, 1/01/19 (a)	4,525	5,138,047
		6,793,174
Kansas 1.7%		
Kansas Development Finance Authority, Refunding RB, Adventist Health System/Sunbelt Obligated Group, Series C, 5.50%, 11/15/29	3,275	3,759,176
Kentucky 0.6%		

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County of Louisville & Jefferson Kentucky Metropolitan Government Parking Authority, RB, Series A, 5.75%, 12/01/34	1,200	1,395,000
Louisiana 2.2%		
Lake Charles Harbor & Terminal District, RB, Series B, AMT (AGM), 5.50%, 1/01/29	1,500	1,805,370

Schedule of Investments (continued)

BlackRock MuniYield Investment Fund
(MYF)

	Par	
	(000)	Value
Municipal Bonds		
Louisiana (continued)		
Louisiana Local Government Environmental Facilities & Community Development Authority, RB, Westlake Chemical Corp. Project, Series A-1, 6.50%, 11/01/35	\$ 1,420	\$ 1,708,274
Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A, 5.50%, 5/15/29	1,195	1,312,457
		4,826,101
Maine 1.4%		
Maine Health & Higher Educational Facilities Authority, RB, Maine General Medical Center, 7.50%, 7/01/32	2,500	2,991,400
Massachusetts 2.5%		
Massachusetts HFA, Refunding RB, AMT:		
Series B, 5.50%, 6/01/41	1,210	1,282,939
Series C, 5.35%, 12/01/42	2,000	2,099,820
Series F, 5.70%, 6/01/40	1,925	2,026,929
		5,409,688
Michigan 2.7%		
City of Lansing Michigan, RB, Board of Water & Light Utilities System, Series A, 5.50%, 7/01/41	1,805	2,132,409
Michigan State Building Authority, Refunding RB, Facilities Program Series:		
6.00%, 10/15/18 (a)	760	856,451
6.00%, 10/15/38	490	548,173
Royal Oak Hospital Finance Authority Michigan, Refunding RB, William Beaumont Hospital, Series V, 8.25%, 9/01/18 (a)	1,970	2,311,204
		5,848,237
Mississippi 1.1%		
Mississippi Development Bank, RB, Jackson Water & Sewer System Project (AGM), 6.88%, 12/01/40	1,785	2,401,307
Nevada 3.3%		
City of Las Vegas Nevada, GO, Limited Tax, Performing Arts Center, 6.00%, 4/01/19 (a)	2,850	3,272,712
	Par	
Municipal Bonds		
	(000)	Value
Nevada (continued)		
County of Clark Nevada Airport System, ARB, Series B, 5.75%, 7/01/42	\$ 3,375	\$ 3,917,059
		7,189,771
New Jersey 4.3%		
New Jersey EDA, RB, The Goethals Bridge Replacement Project, Private Activity Bond, AMT (AGM), 5.00%, 1/01/31	900	1,014,228
New Jersey EDA, Refunding RB, New Jersey American Water Co., Inc. Project, AMT, Series A, 5.70%, 10/01/39	2,250	2,550,600
New Jersey Transportation Trust Fund Authority, RB, Transportation System:		
Series A, 5.88%, 12/15/38	2,670	2,940,712
Series AA, 5.50%, 6/15/39	2,475	2,738,711
		9,244,251
New York 1.4%		
Counties of New York Tobacco Trust IV, Refunding RB, Settlement Pass-Through Turbo, Series A, 6.25%, 6/01/41 (b)	1,100	1,158,861
New York Liberty Development Corp., Refunding RB, 2nd Priority, Bank of America Tower at One Bryant Park Project, Class 3, 6.38%, 7/15/49	1,650	1,856,778
		3,015,639
Ohio 2.2%		
County of Allen Ohio Hospital Facilities, Refunding RB, Catholic Healthcare Partners, Series A, 5.25%, 6/01/38	3,115	3,496,183
State of Ohio Turnpike Commission, RB, Junior Lien, Infrastructure Projects, Series A-1, 5.25%, 2/15/31	1,000	1,208,310

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		4,704,493
Oklahoma 0.4%		
Tulsa Airports Improvement Trust, Refunding RB, American Airlines, Inc., AMT, 5.00%, 6/01/35 (d)	700	802,235
Pennsylvania 5.1%		
Pennsylvania Economic Development Financing Authority, RB, American Water Co. Project, 6.20%, 4/01/39	1,075	1,220,662

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Schedule of Investments (continued)

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	Par	
	(000)	Value
Municipal Bonds		
Pennsylvania (continued)		
Pennsylvania Economic Development Financing Authority, Refunding RB, National Gypson Co., AMT, 5.50%, 11/01/44	\$ 1,000	\$ 1,049,840
Pennsylvania Turnpike Commission, RB:		
Series B, 5.00%, 12/01/45	1,000	1,154,740
Sub-Series A, 6.00%, 12/01/16 (a)	3,000	3,096,270
Sub-Series A, 5.63%, 12/01/31	2,455	2,871,393
Township of Bristol Pennsylvania School District, GO, 5.25%, 6/01/37	1,500	1,741,050
		11,133,955
Rhode Island 1.9%		
Tobacco Settlement Financing Corp., Refunding RB, Series B, 4.50%, 6/01/45	3,950	4,096,071
South Carolina 4.5%		
County of Charleston South Carolina, RB, Special Source, 5.25%, 12/01/38	2,505	3,034,306
County of Charleston South Carolina Airport District, ARB, Series A, AMT:		
6.00%, 7/01/38	1,955	2,325,297
5.50%, 7/01/41	1,000	1,152,540
South Carolina Ports Authority, RB, AMT, 5.25%, 7/01/50	1,280	1,456,550
South Carolina State Public Service Authority, Refunding RB, Series E, 5.25%, 12/01/55	1,500	1,758,915
		9,727,608
Tennessee 1.2%		
Metropolitan Nashville Airport Authority, ARB, Series B, AMT:		
5.00%, 7/01/40	1,350	1,552,189
5.00%, 7/01/43	1,000	1,143,770
		2,695,959
Texas 9.3%		
Central Texas Regional Mobility Authority, Refunding RB, Senior Lien (a):		
5.75%, 1/01/21	1,000	1,171,810
6.00%, 1/01/21	2,600	3,079,466
	Par	
Municipal Bonds (000) Value		
Texas (continued)		
Conroe Texas ISD, GO, School Building, Series A, 5.75%, 2/15/18 (a)	\$ 1,800	\$ 1,961,460
County of Tarrant Texas Cultural Education Facilities Finance Corp., RB, Scott & White Healthcare:		
6.00%, 8/15/20 (a)	280	338,344
6.00%, 8/15/45	3,515	4,252,377
Dallas Area Rapid Transit, Refunding RB, Series A, 5.00%, 12/01/48	1,900	2,247,586
Dallas-Fort Worth International Airport, ARB, Joint Improvement, AMT:		
Series A, 5.00%, 11/01/38	1,365	1,521,866
Series H, 5.00%, 11/01/37	1,535	1,714,487
North Texas Tollway Authority, Refunding RB, 1st Tier, Series K-1 (AGC), 5.75%, 1/01/19 (a)	1,000	1,114,520
Red River Education Financing Corp., RB, Texas Christian University Project, 5.25%, 3/15/38	710	847,001
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	2,003,637
		20,252,554
Virginia 1.9%		
City of Lexington Virginia IDA, RB, Washington & Lee University, 5.00%, 1/01/43	560	644,784
Virginia Public School Authority, RB, Fluvanna County School Financing, 6.50%, 12/01/18 (a)	800	917,640
Virginia Small Business Financing Authority, RB, Senior Lien, Elizabeth River Crossings OpCo LLC Project, AMT, 6.00%, 1/01/37	2,090	2,473,996
		4,036,420
Wisconsin 2.3%		
Wisconsin Health & Educational Facilities Authority, Refunding RB:		

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Froedtert & Community Health, Inc., Series C, 5.25%, 4/01/39

3,470

3,764,811

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Schedule of Investments (continued)

BlackRock MuniYield Investment Fund
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	Par	
	(000)	Value
Municipal Bonds		
Wisconsin (continued)		
Wisconsin Health & Educational Facilities Authority, Refunding RB (continued):		
Medical College of Wisconsin, Inc., 4.00%, 12/01/46 (c)	\$ 1,155	\$ 1,211,468
		4,976,279
Total Municipal Bonds 91.3%		197,900,691
Municipal Bonds Transferred to Tender Option Bond Trusts (e)		
California 20.1%		
Bay Area Toll Authority, Refunding RB, San Francisco Bay Area, Series F-1, 5.63%, 4/01/19 (a)	2,680	3,050,808
California Educational Facilities Authority, RB, University of Southern California, Series B, 5.25%, 10/01/39 (f)	4,200	4,639,404
Grossmont Union High School District, GO, Election of 2008, Series B, 5.00%, 8/01/40	6,000	6,889,860
Los Angeles Community College District California, GO, Election of 2008, Series C, 5.25%, 8/01/39 (f)	5,250	6,127,774
Los Angeles Community College District California, GO, Refunding, Election of 2008, Series A, 6.00%, 8/01/19 (a)	7,697	8,980,518
Los Angeles Unified School District California, GO, Series I, 5.00%, 1/01/34	790	888,821
San Diego Public Facilities Financing Authority Water, RB, Series B, 5.50%, 8/01/39	8,412	9,599,019
University of California, RB, Series O, 5.75%, 5/15/19 (a)	3,000	3,449,280
		43,625,484
Colorado 1.1%		
Colorado Health Facilities Authority, Refunding RB, Catholic Health Initiatives, Series A, 5.50%, 7/01/34 (f)	2,149	2,417,933
District of Columbia 3.3%		
District of Columbia, RB, Series A, 5.50%, 12/01/30 (f)	2,805	3,251,612
	Par	
Municipal Bonds Transferred to Tender Option Bond Trusts (e)		
District of Columbia (continued)		
District of Columbia Water & Sewer Authority, Refunding RB, Senior Lien, Series A, 5.50%, 10/01/18 (a)	\$ 3,507	\$ 3,904,814
		7,156,426
Florida 2.0%		
County of Hillsborough Florida Aviation Authority, ARB, Tampa International Airport, Series A, AMT (AGC), 5.50%, 10/01/38	3,869	4,227,340
Illinois 3.6%		
State of Illinois Finance Authority, RB, University of Chicago, Series B, 6.25%, 7/01/18 (a)	5,300	5,925,612
State of Illinois Toll Highway Authority, RB, Senior Priority, Series B, 5.50%, 1/01/18 (a)	1,750	1,888,469
		7,814,081
Nevada 8.8%		
County of Clark Nevada Water Reclamation District, GO:		
Limited Tax, 6.00%, 7/01/18 (a)	5,000	5,565,650
Series B, 5.50%, 7/01/29	5,668	6,439,047
Las Vegas Valley Water District, GO, Refunding, Series C, 5.00%, 6/01/28	6,070	7,120,899
		19,125,596
New Hampshire 1.1%		
New Hampshire Health & Education Facilities Authority, RB, Dartmouth College, 5.25%, 6/01/19 (a)(f)	2,159	2,438,611
New Jersey 3.6%		
New Jersey Housing & Mortgage Finance Agency, RB, S/F Housing, Series CC, 5.25%, 10/01/29	2,251	2,393,755
New Jersey Transportation Trust Fund Authority, RB, Transportation System: Series A (AMBAC), 5.00%, 12/15/32	4,000	4,192,680

Schedule of Investments (continued)

BlackRock MuniYield Investment Fund
(MYF)

	Par	
	(000)	Value
Municipal Bonds Transferred to Tender Option Bond Trusts (e)		
New Jersey (continued)		
New Jersey Transportation Trust Fund Authority, RB, Transportation System (continued):		
Series B, 5.25%, 6/15/36 (f)	\$ 1,000	\$ 1,076,838
		7,663,273
New York 14.5%		
City of New York New York Municipal Water Finance Authority, Refunding RB, Water & Sewer System, 2nd General Resolution:		
Series BB, 5.25%, 6/15/44	4,408	5,247,930
Series FF, 5.00%, 6/15/45	3,859	4,506,249
Series FF-2, 5.50%, 6/15/40	2,505	2,839,400
City of New York New York Transitional Finance Authority, BARB, Fiscal 2009, Series S-3, 5.25%, 1/15/39	2,499	2,766,849
Hudson Yards Infrastructure Corp., RB, Fiscal 2012, Series A, 5.75%, 2/15/47 (f)	1,290	1,516,552
New York Liberty Development Corp., RB, 1 World Trade Center Port Authority Consolidated Bonds, 5.25%, 12/15/43	4,365	5,185,338
New York Liberty Development Corp., Refunding RB, 4 World Trade Center Project, 5.75%, 11/15/51 (f)	2,560	3,055,653
New York State Dormitory Authority, ERB, Personal Income Tax, Series B, 5.25%, 3/15/38	5,700	6,378,528
		31,496,499
South Carolina 1.7%		
State of South Carolina Public Service Authority, Refunding RB, Santee Cooper, Series A, 5.50%, 1/01/38 (f)	3,240	3,643,607
Texas 6.8%		
City of San Antonio Texas Public Service Board, Refunding RB, Series A, 5.25%, 2/01/31 (f)	3,989	4,437,423
County of Harris Texas Cultural Education Facilities Finance Corp., RB, Texas Children's Hospital Project, 5.50%, 10/01/39	5,400	6,129,000
Municipal Bonds Transferred to Tender Option Bond Trusts (e)	Par	
Texas (continued)	(000)	Value
North Texas Tollway Authority, RB, Special Projects System, Series A, 5.50%, 9/01/41	\$ 3,480	\$ 4,115,030
		14,681,453
Utah 1.0%		
City of Riverton Utah, RB, IHC Health Services, Inc., 5.00%, 8/15/41	1,994	2,180,905
Virginia 0.9%		
County of Fairfax Virginia IDA, Refunding RB, Health Care, Inova Health System, Series A, 5.50%, 5/15/35	1,749	1,974,649
Total Municipal Bonds Transferred to Tender Option Bond Trusts 68.5%		148,445,857
Total Long-Term Investments (Cost \$307,493,322) 159.8%		346,346,548
Short-Term Securities	Shares	
BlackRock Liquidity Funds, MuniCash, 0.19% (g)(h)	3,735,414	3,735,414
Total Short-Term Securities (Cost \$3,735,414) 1.7%		3,735,414
Total Investments (Cost \$311,228,736*) 161.5%		350,081,962
Other Assets Less Liabilities 0.7%		1,701,090
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable (34.8)%		(75,547,725)
VRDP Shares, at Liquidation Value (27.4)%		(59,400,000)
Net Assets Applicable to Common Shares 100.0%		\$ 216,835,327

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* As of April 30, 2016, gross unrealized appreciation and depreciation based on cost for federal income tax purposes were as follows:

Tax cost	\$	236,311,898
Gross unrealized appreciation	\$	38,860,253
Gross unrealized depreciation		(596,156)
Net unrealized appreciation	\$	38,264,097

Schedule of Investments (continued)

BlackRock MuniYield Investment Fund
(MYF)

Notes to Schedule of Investments

- (a) U.S. 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.
- (b) Security exempt from registration pursuant to Rule 144A under the Securities Act of 1933, as amended. These securities may be resold in transactions exempt from registration to qualified institutional investors.
- (c) When-issued security.
- (d) Variable rate security. Rate as of period end.
- (e) Represent bonds transferred to a TOB Trust in exchange of cash and residual certificates received by the Fund. These bonds serve as collateral in a secured borrowing.
- (f) All or a portion of security is subject to a recourse agreement. The aggregate maximum potential amount the Fund could ultimately be required to pay under the agreements, which expire between October 1, 2016 to November 15, 2019, is \$18,118,175.
- (g) During the period ended April 30, 2016, investments in issuers considered to be affiliates of the Fund for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

Affiliate	Shares Held at July 31, 2015	Net Activity	Shares Held at April 30, 2016	Income
BlackRock Liquidity Funds, MuniCash		3,735,414	3,735,414	\$ 532
FFI Institutional Tax-Exempt Fund	2,293,764	(2,293,764)		246
Total			3,735,414	\$ 778

- (h) Current yield as of period end.

Derivative Financial Instruments Outstanding as of Period End
Futures Contracts

Contracts Short	Issue	Expiration	Notional Value	Unrealized Appreciation
(16)	5-Year U.S. Treasury Note	June 2016	\$ 1,934,625	\$ 6,730
(31)	10-Year U.S. Treasury Note	June 2016	\$ 4,031,938	19,945
(9)	Long U.S. Treasury Bond	June 2016	\$ 1,469,813	21,097
(2)	Ultra U.S. Treasury Bond	June 2016	\$ 342,687	4,997
Total				\$ 52,769

Portfolio Abbreviations

AGC	Assured Guarantee Corp.	GARB	General Airport Revenue Bonds
AGM	Assured Guaranty Municipal Corp.	GO	General Obligation Bonds
AMBAC	American Municipal Bond Assurance Corp.	HFA	Housing Finance Agency
AMT	Alternative Minimum Tax (subject to)	IDA	Industrial Development Authority
ARB	Airport Revenue Bonds	IDB	Industrial Development Board
BARB	Building Aid Revenue Bonds	ISD	Independent School District
COP	Certificates of Participation	LRB	Lease Revenue Bonds
EDA	Economic Development Authority	RB	Revenue Bonds
ERB	Education Revenue Bonds	S/F	Single-Family

BLACKROCK MUNIYIELD INVESTMENT FUND

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Schedule of Investments (continued)

BlackRock MuniYield Investment Fund
(MYF)**Fair Value Hierarchy as of Period End**

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

Level 1 unadjusted price quotations in active markets/exchanges for identical assets or liabilities that 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 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 fair value hierarchy classification is determined based on the lowest level input that is significant to the fair value measurement in its entirety. The significant unobservable inputs used by the Global Valuation Committee in determining the price for Fair Valued Investments are typically categorized as level 3.

Changes in valuation techniques may result in transfers into or out of an assigned level within the hierarchy. In accordance with the Fund's policy, transfers between different levels of the fair value 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 investments and derivative financial instruments 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, refer to the Fund's most recent financial statements as contained in its semi-annual report.

The following tables summarize the Fund's investments and derivative financial instruments categorized in the disclosure hierarchy:

	Level 1	Level 2	Level 3	Total
Assets:				
Investments:				
Long-Term Investments ¹		\$ 346,346,548		\$ 346,346,548
Short-Term Securities	\$ 3,735,414			3,735,414
Total	\$ 3,735,414	\$ 346,346,548		\$ 350,081,962

	Level 1	Level 2	Level 3	Total
Derivative Financial Instruments ²				
Assets:				
Interest rate contracts	\$ 52,769			\$ 52,769

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

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

Schedule of Investments (concluded)

BlackRock MuniYield Investment Fund
(MYF)

The Fund may hold assets and/or liabilities in which the fair value approximates the carrying amount for financial reporting purposes. As of period end, such assets and/or liabilities are categorized within the disclosure hierarchy as follows:

	Level 1	Level 2	Level 3	Total
Assets:				
Cash pledged for futures contracts	\$ 93,550			\$ 93,550
Liabilities:				
Bank overdraft		\$ (338,903)		(338,903)
TOB Trust Certificates		(75,505,967)		(75,505,967)
VRDP Shares		(59,400,000)		(59,400,000)
Total	\$ 93,550	\$ (135,244,870)		\$ (135,151,320)

During the period ended April 30, 2016, there were no transfers between levels.

BLACKROCK MUNIYIELD INVESTMENT FUND

APRIL 30, 2016

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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 22, 2016

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 22, 2016

By: /s/ Neal J. Andrews
Neal J. Andrews
Chief Financial Officer (principal financial officer) of
BlackRock MuniYield Investment Fund

Date: June 22, 2016