BLACKROCK MUNIYIELD INVESTMENT FUND Form N-Q June 20, 2018

#### 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: 07/31/2018

Date of reporting period: 04/30/2018

Item 1 Schedule of Investments

Schedule of Investments (unaudited)	BlackRock MuniYield Investment	Fund (MYF)
April 30, 2018	(Percentages shown are based o	on Net Assets)
Security Municipal Bonds 96.1%	Par (000)	Value
Alabama 0.3% City of Selma Alabama IDB, RB, Gulf Opportunity Zone, Intern Series A, 5.38%, 12/01/35	national Paper Co. Project, \$545	\$ 602,470
<b>Arizona 1.4%</b> Arizona IDA, Refunding RB, Basis Schools, Inc. Projects, Serie City of Phoenix Arizona IDA, RB, Legacy Traditional Schools I		1,705,898
5.00%, 07/01/46 <sup>(a)</sup>	1,070	1,091,486
California 11.2%		2,797,384
California Health Facilities Financing Authority, RB, Sutter Hea 08/15/20 <sup>(b)</sup>	1,645	1,796,291
California Health Facilities Financing Authority, Refunding RB, Series A, 6.00%, 07/01/19 <sup>(b)</sup>	, Catholic Healthcare West, 710	744,172
California Municipal Finance Authority, Refunding RB, Commu A, 5.00%, 02/01/42	unity Medical Centers, Series 145	157,725
California Statewide Communities Development Authority, RB, Lancer Educational student Housing Project, 5.00%, 06/01/46	Series A <sup>(a)</sup> : 1,680	1,758,338
Loma Linda University Medical Center, 5.00%, 12/01/46 California Statewide Communities Development Authority, Refe	290 unding RB, Lancer Educational	305,341
student Housing Project, Series A, 5.00%, 06/01/36 <sup>(a)</sup> City & County of San Francisco California Airports Commission	n, Refunding ARB, 2nd Series	1,430,992
A, AMT: 5.50%, 05/01/28 5.25%, 05/01/33	1,065 830	1,203,003 919,723
City of San Jose California, Refunding ARB, Norman Y Mineta SJC, Series A-1, AMT, 5.50%, 03/01/30 Golden State Tobacco Securitization Corp., Refunding RB, Asse	San Jose International Airport 1,500	1,620,465
5.75%, 06/01/47	255 Par	262,324
Security California (continued)	(000)	Value
Kern Community College District, GO, Safety, Repair & Improv 11/01/33 Regents of the University of California Medical Center Pooled F	\$ 1,620	\$ 1,881,727
Series J: 5.25%, 05/15/23 <sup>(b)</sup> 5.25%, 05/15/38	2,905 825	3,337,119 931,309

State of California, GO, Various Purposes,		
6.00%, 03/01/33 State of Colifornia Public Works Board, LDB, Various Conital Projects, Series L 5.50%	2,535	2,728,674
State of California Public Works Board, LRB, Various Capital Projects, Series I, 5.50%, 11/01/31	1,000	1,149,320
State of California Public Works Board, RB, Department of Corrections & Rehabilitation,	1,000	1,149,520
Series F, 5.25%, 09/01/33	835	941,788
Township of Washington California Health Care District, GO, Election of 2004, Series B,		
5.50%, 08/01/40	625	720,300
		21 000 611
Colorado 1.3%		21,888,611
Centerra Metropolitan District No. 1, Tax Allocation Bonds, 5.00%, 12/01/47 <sup>(a)</sup>	345	349,323
City & County of Denver Colorado Airport System, ARB, Series A, AMT:		)
5.50%, 11/15/28	1,000	1,126,090
5.50%, 11/15/30	330	369,468
5.50%, 11/15/31	400	446,760
Colorado Health Facilities Authority, Refunding RB, Frasier Meadows Retirement	200	215 424
Community Project, Series A, 5.25%, 05/15/37	290	315,424
		2,607,065
Connecticut 0.3%		_,,
Connecticut Housing Finance Authority, Refunding RB, S/F Housing:		
Sub-Series A-1, 3.85%, 11/15/43	345	340,574
Sub-Series B-1, 4.00%, 05/15/45 <sup>(c)</sup>	315	316,184
		656,758
Delaware 0.3%		030,738
County of Sussex Delaware, RB, NRG Energy, Inc., Indian River Power LLC Project, 6.00%,		
10/01/40	500	527,655
Florida 9.0%		
City of Jacksonville Florida, Refunding RB, Series A, 5.25%, 10/01/33	675	758,248

# BlackRock MuniYield Investment Fund (MYF)

## April 30, 2018

Security	Par (000)	Value
Florida (continued)	(000)	, сине
City of Tampa Florida, RB, Baycare Health System, Series A, 4.00%, 11/15/46 County of Broward Florida Airport System Revenue, ARB, AMT:	\$ 1,600	\$ 1,614,224
5.00%, 10/01/47	950	1,056,980
Series A, 5.00%, 10/01/45	1,005	1,099,912
County of Hillsborough Florida Aviation Authority, Refunding ARB, Tampa International		
Airport, Series A, AMT, 5.50%, 10/01/29	1,995	2,235,058
County of Lee Florida, Refunding ARB, Series A, AMT, 5.38%, 10/01/32	2,000	2,159,860
County of Lee Florida HFA, RB, S/F Housing, Multi-County Program, Series A-2, AMT		
(Ginnie Mae, Fannie Mae & Freddie Mac), 6.00%, 09/01/40	140	141,368
County of Manatee Florida HFA, RB, S/F Housing, Series A, AMT (Ginnie Mae, Fannie		
Mae & Freddie Mac), 5.90%, 09/01/40	130	132,396
County of Miami-Dade Florida, RB, Seaport Department:		
Series A, 5.38%, 10/01/33	1,170	1,299,226
Series B, AMT, 6.25%, 10/01/38	525	607,388
Series B, AMT, 6.00%, 10/01/42	700	800,436
County of Miami-Dade Florida Aviation, Refunding ARB, Series A, AMT, 5.00%, 10/01/31	2,440	2,645,521
County of Orange Florida Health Facilities Authority, Refunding RB, Presbyterian Retirement Communities Project,		
5.00%, 08/01/41	1,000	1,087,190
Lakewood Ranch Stewardship District, Special Assessment Bonds, Lakewood National &	1,000	1,007,170
Polo Run Projects:		
5.25%, 05/01/37	240	253,015
5.38%, 05/01/47	260	273,536
Reedy Creek Florida Improvement District, GO, Series A, 5.25%, 06/01/32	1,200	1,354,668
Recay creek i fonda improvement District, 60, 50nes 11, 5.25 %, 60/01/52	1,200	17,519,026
Hawaii 0.6%		1,01,010,020
State of Hawaii, Department of Transportation, COP, AMT:		
5.25%, 08/01/25	485	539,087
5.25%, 08/01/26	525	580,587
	020	200,207
		1,119,674
	Par	1,117,071
Security	(000)	Value
Illinois 16.7%	(000)	,
Chicago Board of Education, GO, Series H,		
5.00%, 12/01/36	\$ 295	\$ 293,575
Chicago Board of Education, GO, Refunding, Dedicated Revenues:	φ 275	¢ 275,575
Series D, 5.00%, 12/01/25	530	560,088
Series G, 5.00%, 12/01/25 Series G, 5.00%, 12/01/34	290	290,644
Chicago Board of Education, GO, Refunding Series F,	270	270,044
5.00%, 12/01/22	400	421,888
5.00 /0, 12/01/22	1,000	· · · · · ·
	1,000	1,075,550

City of Chicago Illinois Midway International Airport, Refunding GARB, 2nd Lien, Series A,		
AMT,		
5.00%, 01/01/41		
City of Chicago Illinois O Hare International Airport, GARB, 3rd Lien, Series C, 6.50%,		
01/01/21 <sup>(b)</sup>	6,065	6,740,944
City of Chicago Illinois Transit Authority, RB, Sales Tax Receipts:		
5.25%, 12/01/36	1,000	1,070,200
5.25%, 12/01/40	1,000	1,066,360
County of Cook Illinois Community College District No. 508, GO, City College of Chicago:		
5.50%, 12/01/38	1,000	1,050,340
5.25%, 12/01/43	1,500	1,554,165
Illinois Finance Authority, RB, Carle Foundation, Series A, 6.00%, 08/15/41	4,000	4,420,200
Illinois Finance Authority, Refunding RB:		
Central DuPage Health, Series B, 5.38%, 11/01/19 <sup>(b)</sup>	1,200	1,260,168
Northwestern Memorial Hospital, Series A,		
6.00%, 08/15/19 <sup>(b)</sup>	4,160	4,379,357
Presence Health Network, Series C, 4.00%, 02/15/41	910	900,554
Metropolitan Pier & Exposition Authority, RB, McCormick Place Expansion Project Bonds,		
Series A:		
0.00%, 12/15/56 <sup>(d)</sup>	2,965	378,749
5.00%, 06/15/57	810	847,746
Metropolitan Pier & Exposition Authority, Refunding RB, McCormick Place Expansion		
Project Bonds, Series B, 0.00%, 12/15/54 <sup>(d)</sup>	4,140	592,517

# BlackRock MuniYield Investment Fund (MYF)

## April 30, 2018

Security Illinois (continued)	Par (000)	Value
Railsplitter Tobacco Settlement Authority, RB <sup>(b)</sup> :		
5.50%, 06/01/21	\$1,370	\$ 1,506,932
6.00%, 06/01/21	390	434,764
State of Illinois, GO:	2 200	2 255 704
5.25%, 02/01/32 5.50%, 07/01/33	2,200 1,000	2,255,704 1,034,380
5.50%, 07/01/38	415	427,164
		32,561,789
<b>Indiana</b> 4.5% City of Valparaiso Indiana, RB, Exempt Facilities, Pratt Paper LLC Project, AMT,		
6.75%, 01/01/34	1,350	1,575,842
County of Allen Indiana, RB, StoryPoint Fort Wayne Project, Series A-1 <sup>(a)</sup> :	1,550	1,575,012
6.63%, 01/15/34	170	180,892
6.75%, 01/15/43	355	377,255
6.88%, 01/15/52	515	548,377
Indiana Finance Authority, Refunding RB, Marquette Project, 4.75%, 03/01/32	700	715,939
Indiana Municipal Power Agency, RB, Series B, 6.00%, 01/01/19 <sup>(b)</sup>	4,525	4,648,487
Town of Chesterton Indiana, RB, StoryPoint Chesterton Project, Series A-1,	700	742 442
6.38%, 01/15/51 <sup>(a)</sup>	720	742,442
		8,789,234
Iowa 1.2%		
Iowa Finance Authority, Refunding RB, Iowa Fertilizer Co. Project:		
Series B, 5.25%, 12/01/50 <sup>(e)</sup>	1,255	1,318,139
Midwestern Disaster Area,	5	5 072
5.50%, 12/01/22 Midwestern Disaster Area,	5	5,073
5.25%, 12/01/25	865	920,351
		)
		2,243,563
Kansas 2.1%		
City of Lenexa Kansas, Refunding RB, Lakeview Village, Inc., Series A,	655	600.022
5.00%, 05/15/43 Kansas Development Finance Authority, Refunding RB, Adventist Health System:	655	690,023
5.50%, 11/15/19 <sup>(b)</sup>	75	78,823
5.50%, 11/15/29	3,200	3,385,600
	,	· · ·
		4,154,446
Louisiana 2.3%		
Lake Charles Louisiana Harbor & Terminal District, RB, Series B, AMT (AGM), 550%, 01/01/20	1 500	1 674 060
5.50%, 01/01/29	1,500	1,674,060

Security Louisiana (continued)	Par (000)	Value
Louisiana Local Government Environmental Facilities & Community Development Authority, RB, Westlake Chemical Corp. Project, Series A-1, 6.50%, 11/01/35 Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A,	\$ 1,420	\$ 1,563,207
5.50%, 05/15/29	1,195	1,238,546
		4,475,813
Maine 0.4% Maine Health & Higher Educational Facilities Authority, RB, Maine General Medical Center, 7.50%, 07/01/32	765	853,411
<b>Maryland 0.4%</b> City of Baltimore Maryland, Refunding RB, East Baltimore Research Park, Series A,		
4.50%, 09/01/33	185	191,260
City of Baltimore Maryland, Tax Allocation Bonds, Center/West Development, Series A, 5.38%, 06/01/36	585	592,816
Maryland Health & Higher Educational Facilities Authority, RB, Trinity Health Credit Group, Series 2017, 5.00%, 12/01/46	20	22,515
		806,591
Massachusetts 2.3% Massachusetts HFA, Refunding RB, AMT:		
Series B, 5.50%, 06/01/41	975	1,003,333
Series C, 5.35%, 12/01/42	795	809,374
Series F, 5.70%, 06/01/40	1,645	1,662,536
Massachusetts Housing Finance Agency, RB, M/F Housing, Series D, 3.95%,		
12/01/52	950	908,532
		4,383,775
Michigan 2.7%		
City of Lansing Michigan, RB, Board of Water & Light Utilities System, Series A,	1.905	1 075 500
5.50%, 07/01/41 Mishigan State Duilding Authority, Defunding DD, Equilities December Series	1,805	1,975,590
Michigan State Building Authority, Refunding RB, Facilities Program Series:	760	774 106
$6.00\%, 10/15/18^{(b)}$	760	774,106
6.00%, 10/15/18 <sup>(b)</sup>	450	458,352
6.00%, 10/15/38	40	40,739

Schedule of Investments (unaudited) (continued)	BlackRock MuniYield Investment Fi	und (MYF)
April 30, 2018	(Percentages shown are based on	Net Assets)
Security	Par (000)	Value
Michigan (continued)		,
Royal Oak Hospital Finance Authority Michigan, Refunding RB, V Hospital, Series V, 8.25%, 09/01/18 <sup>(b)</sup>	William Beaumont \$1,970 \$	2,011,725
		5,260,512
<b>Montana 0.1%</b> City of Kalispell Montana, Refunding RB, Immanuel Lutheran Co 5.25%, 05/15/37	prporation Project, Series A, 170	177,835
Nevada 3.4% City of Las Vegas Nevada, GO, Limited Tax, Performing Arts Cer County of Clark Nevada Airport System, ARB, Series B, 5.75%, 0		2,956,903 3,581,584
		( 529 497
New Hampshire 0.5%		6,538,487
New Hampshire Housing Finance Authority, RB, Cimarron, Whitt (FHA), 4.00%, 07/01/52	tier Falls & Marshall 1,000	996,260
New Jersey 5.7%		
New Jersey EDA, RB, Private Activity Bond, Goethals Bridge Rep (AGM), 5.00%, 01/01/31	900	993,087
New Jersey EDA, Refunding RB, New Jersey American Water Co AMT, 5.70%, 10/01/39	•	2 247 762
New Jersey Transportation Trust Fund Authority, RB, Transportat	2,250 ion System:	2,347,762
Series A, 5.88%, 12/15/38	2,670	2,724,121
Series AA, 5.50%, 06/15/39 South Jarson Port Corr. ABB. Marine Terminal Series B. AMT.	2,475	2,644,018
South Jersey Port Corp., ARB, Marine Terminal, Series B, AMT, S Tobacco Settlement Financing Corp., Refunding RB:	5.00%, 01/01/42 230	245,799
Series A, 5.00%, 06/01/46	935	1,009,491
Series A, 5.25%, 06/01/46	240	266,551
Sub-Series B, 5.00%, 06/01/46	895	939,052
		11,169,881
New York 1.7%		
Counties of New York Tobacco Trust IV, Refunding RB, Settleme Series A, 6.25%, 06/01/41 <sup>(a)</sup>	1,100	1,145,540
Security	Par (000)	Value
New York (continued)		
New York Liberty Development Corp., Refunding RB, 2nd Priorit at One Bryant Park Project, Class 3, 6.38%, 07/15/49	\$ 1,650	\$ 1,745,354
New York Transportation Development Corp., ARB, LaGuardia A Redevelopment Project, Series A, AMT, 5.25%, 01/01/50	Arport Terminal B 475	513,589

		3,404,483
<ul> <li>Ohio 2.4%</li> <li>Buckeye Tobacco Settlement Financing Authority, RB, Asset-Backed, Senior Turbo Term, Series A-2, 5.75%, 06/01/34</li> <li>County of Allen Ohio Hospital Facilities Revenue, Refunding RB, Catholic Healthcare</li> </ul>	310	307,225
Partners, Series A, 5.25%, 06/01/20 <sup>(b)</sup>	3,115	3,318,285
State of Ohio Turnpike Commission, RB, Junior Lien, Infrastructure Projects, Series A-1, 5.25%, 02/15/31	1,000	1,109,460
		4,734,970
<b>Oklahoma</b> 1.2% County of Tulsa Oklahoma Industrial Authority, Refunding RB, Montereau, Inc. Project,		
5.25%, 11/15/37	450	496,057
Oklahoma Development Finance Authority, RB, OU Medicine Project, Series B, 5.25%, 08/15/48	760	832,033
Oklahoma Turnpike Authority, RB, 2nd Series C, 4.00%, 01/01/42	1,075	1,099,478
4.00 %, 01/01/42	1,075	1,077,470
		2,427,568
<b>Pennsylvania</b> 4.4% Allentown Neighborhood Improvement Zone Development Authority, RB, City Center Project,		
5.00%, 05/01/42 <sup>(a)</sup>	585	619,316
Commonwealth Financing Authority, RB, Tobacco Master Settlement Payment:	100	145.005
5.00%, 06/01/33 5.00%, 06/01/34	130 235	145,385 261,130
5.00%, 06/01/34	233 445	493,296
County of Montgomery Higher Education & Health Authority, Refunding RB, Thomas	115	195,290
Jefferson University, Series A, 4.00%, 09/01/49 <sup>(c)</sup>	380	373,973
Pennsylvania Economic Development Financing Authority, RB, American Water Co. Project, 6.20%, 04/01/39	1,075	1,113,872

# BlackRock MuniYield Investment Fund (MYF)

## April 30, 2018

Security	Par (000)	Value
Pennsylvania (continued) Pennsylvania Economic Development Financing Authority, Refunding RB, National Gypsum Co., AMT, 5.50%, 11/01/44 Pennsylvania Turnpike Commission, RB, Series A <sup>(b)</sup> :	\$ 1,000	\$ 1,051,200
5.63%, 12/01/20 5.63%, 12/01/20	1,470 545	1,600,242 593,287
State Public School Building Authority, Refunding RB, The School District of Philadelphia Project, Series A, 5.00%, 06/01/34 Township of Bristol Pennsylvania School District, GO, 5.25%, 06/01/37	625 1,500	691,025 1,649,745
Puerto Rico 1.2%		8,592,471
Children s Trust Fund, Refunding RB, Tobacco Settlement Asset-Backed Bonds: 5.50%, 05/15/39	1,200	1,170,768
5.63%, 05/15/43	1,145	1,094,975
Rhode Island 2.3%		2,265,743
Tobacco Settlement Financing Corp., Refunding RB: Series A, 5.00%, 06/01/35	525	564,449
Series B, 4.50%, 06/01/45	3,950	3,990,448
South Carolina 3.9%		4,554,897
County of Charleston South Carolina, RB, Special Source, 5.25%, 12/01/38 County of Charleston South Carolina Airport District, ARB, Series A, AMT:	2,505	2,850,490
6.00%, 07/01/38	1,955	2,206,608
5.50%, 07/01/41 State of South Coroling Ports Authority, PR, AMT, 5.25%, 07/01/50	1,000	1,103,620
State of South Carolina Ports Authority, RB, AMT, 5.25%, 07/01/50	1,280	1,413,965
Texas 7.9%		7,574,683
Central Texas Regional Mobility Authority, Refunding RB, Senior Lien <sup>(b)</sup> :		
5.75%, 01/01/21	1,000	1,090,790
6.00%, 01/01/21	2,600	2,852,772
County of Tarrant Texas Cultural Education Facilities Finance Corp., RB, Scott & White Healthcare, 6.00%, 08/15/20 <sup>(b)</sup>	3,515 Par	3,828,362
Security	(000)	Value
<b>Texas (continued)</b> Dallas-Fort Worth Texas International Airport, ARB, Joint Improvement, AMT:		
Series H, 5.00%, 11/01/37	\$1,365 \$ 1,535	1,434,588 1,639,887

North Texas Tollway Authority, Refunding RB, 1st Tier, Series K-1 (AGC), 5.75%,		
01/01/19 <sup>(b)</sup>	1,000	1,025,990
Red River Texas Education Financing Corp., RB, Texas Christian University Project,		
5.25%, 03/15/38	710	788,647
San Antonio Water System, Refunding RB, Junior Lien, Series A, 5.00%, 05/15/48 <sup>(c)</sup>	805	915,204
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	1,827,636
		15,403,876
Virginia 3.3%		
City of Lexington Virginia IDA, RB, Washington & Lee University, 5.00%, 01/01/43	560	606,659
County of Fairfax Virginia IDA, Refunding RB, Health Care-Inova Health <sup>(b)</sup> :	64.0	
5.50%, 05/15/19	610	632,418
5.50%, 05/15/19	1,135	1,177,313
State of Virginia Public School Authority, RB, Fluvanna County School Financing,		
6.50%, 12/01/18 <sup>(b)</sup>	800	821,888
Tobacco Settlement Financing Corp., Refunding RB, Senior Series B-1, 5.00%, 06/01/47	1,395	1,374,786
Virginia Small Business Financing Authority, RB, Senior Lien, Elizabeth River Crossings		
OpCo LLC Project, AMT, 6.00%, 01/01/37	1,715	1,908,503
		( 501 5(7
Wisconsin 1.1%		6,521,567
Public Finance Authority, Refunding RB, Mery s Wood at Marylhurst Projects, 5.25%,		
$05/15/52^{(a)}$	1,015	1,094,434
Wisconsin Health & Educational Facilities Authority, RB, Aspirus, Inc. Obligated Group,	1,015	1,094,434
5.00%, 08/15/52	935	1,025,882
5.00%, 08/15/52	955	1,025,002
		2,120,316
		2,120,010

 Total Municipal Bonds
 96.1%

 (Cost
 \$177,137,782)

187,730,814

## BlackRock MuniYield Investment Fund (MYF)

# April 30, 2018

Security $(000)$ ValueMunicipal Bonds Transferred to Tender Option Bond Trusts (f)California 22.7%Bay Area Toll Authority, Refunding RB, San Francisco Bay Area: Toll Bridge, 4.00%, 04/01/42 <sup>(g)</sup> \$1,998\$ 2,067,443Series F-1, 5.63%, 04/01/19 <sup>(b)</sup> 2,6812,775,455California Educational Facilities Authority, RB, University of Southern California, Series B, $5.25\%$ , 10/01/18 <sup>(b)(g)</sup> 4,1984,259,244Grossmont California Union High School District, GO, Election of 2008, Series B, $5.00\%$ , 08/01/20 <sup>(b)</sup> 6,0006,406,530Los Angeles California Unified School District, GO, Series I, 5.00%, 01/01/34790817,283Los Angeles Community College District California, GO, Refunding, Go, Refunding, Election of 2008, Series A, 6.00%, 08/01/19 <sup>(b)</sup> 7,6968,097,905Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment District No. 2 Bonds, 5.00%, 10/01/471,9802,246,861Os Di
California 22.7%Bay Area Toll Authority, Refunding RB, San Francisco Bay Area:Toll Bridge, 4.00%, 04/01/42(g)\$ 1,998Series F-1, 5.63%, 04/01/19(b)2,681California Educational Facilities Authority, RB, University of Southern California, Series B, $5.25\%$ , 10/01/18(b)(g)2,681Crossmont California Union High School District, GO, Election of 2008, Series B, $5.00\%$ , 08/01/20(b)4,198Los Angeles California Unified School District, GO, Series I, 5.00%, 01/01/346,000Los Angeles Community College District California, GO, Election of 2008, Series C, 5.25%, $08/01/20(b)(g)$ 5,251Los Angeles Community College District California, GO, Refunding, Election of 2008, Series A, 6.00%, 08/01/19(b)7,696Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment District No. 2 Bonds, 5.00%, 10/01/471,980
Bay Area Toll Authority, Refunding RB, San Francisco Bay Area:       \$1,998       \$2,067,443         Toll Bridge, 4.00%, 04/01/42 <sup>(g)</sup> \$1,998       \$2,067,443         Series F-1, 5.63%, 04/01/19 <sup>(b)</sup> 2,681       2,775,455         California Educational Facilities Authority, RB, University of Southern California, Series B,       5,25%, 10/01/18 <sup>(b)(g)</sup> 4,198       4,259,244         Grossmont California Union High School District, GO, Election of 2008, Series B,       5,00%, 08/01/20 <sup>(b)</sup> 6,000       6,406,530         Los Angeles California Unified School District, GO, Series I, 5,00%, 01/01/34       790       817,283         Los Angeles Community College District California, GO, Refunding, Go, Refunding,       5,251       5,641,579         Los Angeles Community College District California, GO, Refunding, Go, Refunding,       7,696       8,097,905         Los Angeles Community College District California, GO, Refunding, Go, Refunding,       7,696       8,097,905         Los Angeles Community College District California, GO, Refunding, Go, Refunding,       7,696       8,097,905         Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment       7,696       8,097,905         District No. 2 Bonds, 5.00%, 10/01/47       1,980       2,246,861
Toll Bridge, $4.00\%$ , $04/01/42^{(g)}$ \$ 1,998\$ 2,067,443Series F-1, $5.63\%$ , $04/01/19^{(b)}$ 2,6812,775,455California Educational Facilities Authority, RB, University of Southern California, Series B, $5.25\%$ , $10/01/18^{(b)(g)}$ 4,1984,259,244Grossmont California Union High School District, GO, Election of 2008, Series B, $5.00\%$ , $08/01/20^{(b)}$ 6,0006,406,530Los Angeles California Unified School District, GO, Series I, $5.00\%$ , $01/01/34$ 790817,283Los Angeles Community College District California, GO, Election of 2008, Series C, $5.25\%$ , $08/01/20^{(b)(g)}$ 5,2515,641,579Los Angeles Community College District California, GO, Refunding, Go, Refunding, Election of 2008, Series A, $6.00\%$ , $08/01/19^{(b)}$ 7,6968,097,905Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment District No. 2 Bonds, $5.00\%$ , $10/01/47$ 1,9802,246,861
Series F-1, $5.63\%$ , $04/01/19^{(b)}$ 2,6812,775,455California Educational Facilities Authority, RB, University of Southern California, Series B, $5.25\%$ , $10/01/18^{(b)(g)}$ 4,1984,259,244Grossmont California Union High School District, GO, Election of 2008, Series B, $5.00\%$ , $08/01/20^{(b)}$ 6,0006,406,530Los Angeles California Unified School District, GO, Series I, $5.00\%$ , $01/01/34$ 790817,283Los Angeles Community College District California, GO, Election of 2008, Series C, $5.25\%$ , $08/01/20^{(b)(g)}$ 5,2515,641,579Los Angeles Community College District California, GO, Refunding, Go, Refunding, Election of 2008, Series A, $6.00\%$ , $08/01/19^{(b)}$ 7,6968,097,905Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment District No. 2 Bonds, $5.00\%$ , $10/01/47$ 1,9802,246,861
$5.25\%$ , $10/01/18^{(b)(g)}$ $4,198$ $4,259,244$ Grossmont California Union High School District, GO, Election of 2008, Series B, $5.00\%$ , $08/01/20^{(b)}$ $6,000$ $6,406,530$ Los Angeles California Unified School District, GO, Series I, $5.00\%$ , $01/01/34$ $790$ $817,283$ Los Angeles Community College District California, GO, Election of 2008, Series C, $5.25\%$ , $5,251$ $5,641,579$ Los Angeles Community College District California, GO, Refunding, Go, Refunding, Election of 2008, Series A, $6.00\%$ , $08/01/19^{(b)}$ $7,696$ $8,097,905$ Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment District No. 2 Bonds, $5.00\%$ , $10/01/47$ $1,980$ $2,246,861$
5.00%, 08/01/20(b)6,0006,406,530Los Angeles California Unified School District, GO, Series I, 5.00%, 01/01/34790817,283Los Angeles Community College District California, GO, Election of 2008, Series C, 5.25%, 08/01/20(b)(g)5,2515,641,579Los Angeles Community College District California, GO, Refunding, Go, Refunding, Election of 2008, Series A, 6.00%, 08/01/19(b)7,6968,097,905Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment District No. 2 Bonds, 5.00%, 10/01/471,9802,246,861
Los Angeles California Unified School District, GO, Series I, 5.00%, 01/01/34790817,283Los Angeles Community College District California, GO, Election of 2008, Series C, 5.25%, 08/01/20 <sup>(b)(g)</sup> 5,2515,641,579Los Angeles Community College District California, GO, Refunding, Go, Refunding, Election of 2008, Series A, 6.00%, 08/01/19 <sup>(b)</sup> 7,6968,097,905Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment1,9802,246,861
Los Angeles Community College District California, GO, Election of 2008, Series C, 5.25%, 08/01/20 <sup>(b)(g)</sup> 5,2515,641,579Los Angeles Community College District California, GO, Refunding, Go, Refunding, Election of 2008, Series A, 6.00%, 08/01/19 <sup>(b)</sup> 7,6968,097,905Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment District No. 2 Bonds, 5.00%, 10/01/471,9802,246,861
Los Angeles Community College District California, GO, Refunding, Go, Refunding, Election of 2008, Series A, 6.00%, 08/01/19 <sup>(b)</sup> 7,6968,097,905Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment District No. 2 Bonds, 5.00%, 10/01/471,9802,246,861
Election of 2008, Series A, 6.00%, 08/01/19(b)7,6968,097,905Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment1,9802,246,861District No. 2 Bonds, 5.00%, 10/01/471,9802,246,861
Sacramento Area Flood Control Agency, Refunding, Consolidated Capital AssessmentDistrict No. 2 Bonds, 5.00%, 10/01/471,9802,246,861
District No. 2 Bonds, 5.00%, 10/01/47         1,980         2,246,861
San Diego Public Facilities Financing Authority Water, RB, Series B, 5.50%, 08/01/19 <sup>(b)</sup> 8,412 8,791,627 University of California, RB, Series O,
5.75%, 05/15/19 <sup>(b)</sup> 3,001       3,121,747
44,225,674
Colorado 1.1%
Colorado Health Facilities Authority, Refunding RB, Catholic Health Initiatives, Series A, 5.50%, 07/01/34 <sup>(g)</sup> 2,149 2,217,489
District of Columbia 3.3%
District of Columbia, RB, Series A,
5.50%, 12/01/30 <sup>(g)</sup> 2,804 2,958,206
Par Security (000) Value
District of Columbia (continued)
District of Columbia Water & Sewer Authority, Refunding RB, Senior Lien, Series A,
5.50%, 10/01/18 <sup>(b)</sup> \$3,507 \$ 3,560,826
6,519,032
Florida 2.9%
County of Hillsborough Florida Aviation Authority, ARB, Tampa International Airport,
Series A, AMT (AGC), 5.50%, 10/01/383,8693,919,366South Miami Health Facilities Authority, Refunding RB, Baptist Health South Florida,3,8693,919,366
5.00%, 08/15/47 1,575 1,750,287
5,669,653

Illinois 2.7% State of Illinois Finance Authority, RB, University of Chicago, Series B, 6.25%, 07/01/18 <sup>(b)</sup>	5,300	5,338,822
Nevada 10.6%		
County of Clark Nevada, GO, Stadium Improvement, Series A, 5.00%, 05/01/48 <sup>(c)</sup> County of Clark Nevada Water Reclamation District, GO <sup>(b)</sup> :	2,740	3,110,560
Limited Tax, 6.00%, 07/01/18	5,000	5,035,025
Series B, 5.50%, 07/01/19	5,668	5,899,244
Las Vegas Valley Water District, GO, Refunding, Series C,		
5.00%, 06/01/28	6,070	6,551,594
		20,596,423
New Hampshire 1.1%		
New Hampshire Health & Education Facilities Authority, RB, Dartmouth College, 5.25%, 06/01/19 <sup>(b)(g)</sup>	2,159	2,236,992
New Jersey 3.6%		
New Jersey Housing & Mortgage Finance Agency, RB, S/F Housing, Series CC,		
5.25%, 10/01/29	1,970	2,002,576
New Jersey Transportation Trust Fund Authority, RB, Transportation System:		
Series A (AMBAC) (AGM),	1.000	1 000 000
5.00%, 12/15/32	4,000	4,008,380
Series B, 5.25%, 06/15/36 <sup>(g)</sup>	1,000	1,040,083
		7 051 020
		7,051,039

## BlackRock MuniYield Investment Fund (MYF)

## April 30, 2018

	Pa	
Security New York 16.6%	(000	D) Value
City of New York Municipal Water Finance Authority, Refunding RB:		
Series FF, 5.00%, 06/15/45	\$ 3,85	9 \$ 4,184,576
Water & Sewer System, 2nd General Resolution,	φ 5,65	γ φ τ,10τ,570
Series BB, 5.25%, 06/15/44	4,40	4,847,648
Water & Sewer System, 2nd General Resolution,	4,40	6 4,647,046
Series FF-2, 5.50%, 06/15/40	2,50	5 2,605,492
City of New York Transitional Finance Authority, BARB, Fiscal 2009, Series S-3, 5.25		5 2,005,472
01/15/39	2,49	9 2,555,812
Hudson Yards Infrastructure Corp., RB, Fiscal 2012, Series A, 5.75%, 02/15/47 <sup>(g)</sup>	1,29	
Metropolitan Transportation Authority, Refunding RB, Series C-1, 5.25%, 11/15/56	3,00	
New York Liberty Development Corp., ARB, 1 World Trade Center Port Authority	5,00	0 3,377,323
Consolidated Bonds, 5.25%, 12/15/43	4,36	4,755,458
New York Liberty Development Corp., Refunding RB, 4 World Trade Center Project,	1,50	5 1,755,150
5.75%, 11/15/51 <sup>(g)</sup>	2,56	0 2,832,780
New York State Dormitory Authority, ERB, Personal Income Tax, Series B, 5.25%,	2,50	2,032,700
03/15/19 <sup>(b)</sup>	5,70	0 5,869,319
	0,70	0 0,000,017
		32,438,581
Pennsylvania 0.9%		
Pennsylvania Turnpike Commission, RB, Sub-Series A, 5.50%, 12/01/42	1,51	4 1,724,213
	- ,	
South Carolina 1.7%		
South Carolina Public Service Authority, Refunding RB, Series A <sup>(b)(g)</sup> :		
5.50%, 01/01/19	25	8 264,238
5.50%, 01/01/19	2,98	,
	_,> <	0 0,000,000
		3,319,570
	Par	-,,
Security	(000)	Value
Texas 7.0%	(000)	,
City of San Antonio Texas Public Service Board, Refunding RB, Series A,		
5.25%, 02/01/19 <sup>(b)(g)</sup>	\$ 3,989	\$ 4,088,524
County of Harris Texas Cultural Education Facilities Finance Corp., RB, Texas	+ -,	+ .,
Children s Hospital Project,		
5.50%, 10/01/39	5,400	5,650,965
North Texas Tollway Authority, RB, Special Projects System, Series A,	-,	-,,
5.50%, 09/01/21 <sup>(b)</sup>	3,480	3,847,958
	-,	-,,
		13,587,447
Utah 1.1%		,, -
City of Riverton Utah, RB, IHC Health Services, Inc., 5.00%, 08/15/41	1,994	2,068,454
- · · · · · · · · · · · · · · · · · · ·	,	

Total Municipal Bonds Transferred to Tender Option Bond Trusts 75.3% (Cost \$142,199,036)		146,993,389
Total Long-Term Investments 171.4% (Cost \$319,336,818)		334,724,203
	Shares	
Short-Term Securities 0.9% BlackRock Liquidity Funds, MuniCash, Institutional Class, 1.48% <sup>(h)(i)</sup>	1,699,648	1,699,648
Total Short Term Securities 0.9% (Cost \$1,699,648)		1,699,648
Total Investments172.3%(Cost \$321,036,466)Other Assets Less Liabilities0.5%Liability for TOB Trust Certificates, Including Interest Expense and Fees PayableVRDP Shares at Liquidation Value, Net of Deferred Offering Costs(30.3)%	(42.5)%	336,423,851 895,035 (82,879,454) (59,232,212)
Net Assets Applicable to Common Shares 100.0%		\$ 195,207,220

<sup>(a)</sup> 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.

<sup>(b)</sup> 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.

<sup>(c)</sup> When-issued security.

## BlackRock MuniYield Investment Fund (MYF)

April 30, 2018

- <sup>(d)</sup> Zero-coupon bond.
- <sup>(e)</sup> Variable or floating rate security, which interest rate adjusts periodically based on changes in current interest rates and prepayments on the underlying pool of assets. Rate shown is the rate in effect as of period end.
- <sup>(f)</sup> 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.
- (g) 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 May 7, 2018 to April 1, 2025, is \$19,649,317.
- <sup>(h)</sup> Annualized 7-day yield as of period end.
- (i) During the period ended April 30, 2018, investments in issuers considered to be an affiliate of the Fund for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

	Shares							Ch	nange in
	Held at		Shares				NetU	Inrec	alized
		Net	Held at	Value at		Real	lizeAlp	preci	iation
Affiliated	07/31/17	Activity	04/30/18	04/30/18	Incomein	ı (Los	ss(Dep	precic	ation)
BlackRock Liquidity									
Funds, MuniCash,									
Institutional Class	1,140,114	559,534	1,699,648	\$ 1,699,648	\$ 5,040	\$	30	\$	(69)

<sup>(a)</sup> Includes net capital gain distributions, if applicable.

For Fund compliance purposes, the Fund s sector classifications refer to one or more of the sector sub-classifications used by one or more widely recognized market indexes or rating group indexes, and/or as defined by the investment adviser. These definitions may not apply for purposes of this report, which may combine such sector sub-classifications for reporting ease.

## Derivative Financial Instruments Outstanding as of Period End

## **Futures Contracts**

Description Short Contracts:	Number of Contracts	Expiration Date	Notional Amount(000)		Value / Unrealized Appreciation (Depreciation)	
10-Year U.S. Treasury Note	11	06/20/18	\$	1,316	\$	7,561
Long U.S. Treasury Bond	23	06/20/18		3,308		2,426
5-Year U.S. Treasury Note	18	06/29/18		2,043		5,350

# **Portfolio Abbreviations**

AGC	Assured Guarantee Corp.
AGM	Assured Guaranty Municipal Corp.
AMBAC	American Municipal Bond Assurance Corp.
AMT	Alternative Minimum Tax (subject to)
ARB	Airport Revenue Bonds
BARB	Building Aid Revenue Bonds
COP	Certificates of Participation
EDA	Economic Development Authority
ERB	Education Revenue Bonds
FHA	Federal Housing Administration

8

\$ 15,337

### BlackRock MuniYield Investment Fund (MYF)

April 30, 2018

#### **Portfolio Abbreviations (continued)**

GARB	General Airport Revenue Bonds		
GO	General Obligation Bonds		
HFA	Housing Finance Agency		
IDA	Industrial Development Authority		
IDB	Industrial Development Board		
LRB	Lease Revenue Bonds		
M/F	Multi-Family		
RB	Revenue Bonds		
S/F	Single-Family		
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 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 fair value hierarchy classification is determined based on the lowest level input that is significant to the fair value measurement in its entirety. Investments classified within Level 3 have significant unobservable inputs used by the BlackRock Global Valuation Methodologies Committee (the Global Valuation Committee ) in determining the price for Fair Valued Investments. Level 3 investments include equity or debt issued by privately held companies or funds. There may not be a secondary market, and/or there are a limited number of investors. Level 3 investments may also be adjusted to reflect illiquidity and/or non-transferability, with the amount of such discount estimated by the

Global Valuation Committee in the absence of market information.

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 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.

As of April 30, 2018, 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 <sup>(a)</sup>	\$	\$ 334,724,203	\$	\$ 334,724,203
Short-Term Securities	<sup>0</sup> 1,699,648	ψ 33 <b>-</b> ,72 <b>-</b> ,203	Ψ	1,699,648
	\$ 1,699,648	\$ 334,724,203	\$	\$ 336,423,851
Derivative Financial Instruments <sup>(b)</sup>				
Assets: Interest rate contracts	\$ 15,337	\$	\$	\$ 15,337
	,,			,,

<sup>(a)</sup> See above Schedule of Investments for values in each state or political subdivision.

<sup>(b)</sup> Derivative financial instruments are futures contracts which are valued at the unrealized appreciation (depreciation) on the instrument.

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

April 30, 2018

The Fund may hold assets and/or liabilities in which the fair value approximates the carrying 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
Liabilities: TOB Trust Certificates VRDP Shares at Liquidation Value	\$	\$ (82,571,275) (59,400,000)	\$	\$ (82,571,275) (59,400,000)
	\$	\$(141,971,275)	\$	\$(141,971,275)

During the period ended April 30, 2018, there were no transfers between levels.

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 18, 2018

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 18, 2018

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

BlackRock MuniYield Investment Fund

Date: June 18, 2018