

BLACKROCK MUNIYIELD INVESTMENT FUND
Form N-Q
December 21, 2012

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: 10/31/2012

Item 1 – Schedule of Investments

BlackRock MuniYield Investment Fund (MYF)**Schedule of Investments** October 31, 2012 (Unaudited)**(Percentages shown are based on Net Assets)**

	Par (000)	Value
Municipal Bonds		
Alabama — 0.7%		
Courtland IDB, Refunding RB, International Paper Co. Projects, Series A, AMT, 5.20%, 6/01/25	\$1,000	\$ 1,033,110
Selma IDB Alabama, RB, International Paper Co. Project, Series A, 5.38%, 12/01/35	545	597,020
		1,630,130
Alaska — 0.8%		
Alaska Municipal Bond Bank Authority, RB, Series 1, 5.38%, 9/01/33	1,000	1,153,630
Northern Tobacco Securitization Corp., Refunding RB, Series A, 5.00%, 6/01/46	690	584,658
		1,738,288
Arizona — 0.8%		
Arizona Board of Regents, Refunding RB, University of Arizona, Series A, 5.00%, 6/01/42	1,500	1,721,280
California — 10.7%		
California Educational Facilities Authority, RB, University of Southern California, Series A, 5.25%, 10/01/38	2,740	3,244,872
California Health Facilities Financing Authority, RB:		
Stanford Hospital and Clinics, Series A, 5.00%, 8/15/42	1,625	1,826,906
Sutter Health, Series B, 6.00%, 8/15/42	1,645	1,976,566
California Health Facilities Financing Authority, Refunding RB, Catholic Healthcare West, Series A, 6.00%, 7/01/39	710	839,682
City of San Jose California, Refunding ARB, Series A-1, AMT, 5.50%, 3/01/30	1,500	1,719,810
Grossmont Union High School District, GO, Election of 2008, Series B, 4.75%, 8/01/45	4,080	4,417,579
Los Angeles Department of Water & Power, RB, Power System, Sub-Series A-1, 5.25%, 7/01/38	3,600	4,198,572
San Diego Regional Building Authority California, RB, County Operations Center & Annex, Series A, 5.38%, 2/01/36	1,310	1,478,885
State of California, GO, Various Purpose, 6.00%, 3/01/33	2,535	3,143,299
University of California, Refunding RB, Limited Project, Series G, 5.00%, 5/15/37	1,000	1,165,730

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24,011,901

Par
(000) Value

Municipal Bonds

Colorado — 0.5%

City & County of Denver Colorado, Refunding ARB,
Airport System, Series B, 5.00%, 11/15/37 \$900 \$ 1,022,418

Florida — 6.2%

City of Jacksonville Florida Sales Tax, Refunding RB,
Better Jacksonville, Series A, 5.00%, 10/01/30 1,120 1,295,269

County of Escambia Florida, Refunding RB, International
Paper Corp. Projects, Series B, AMT, 5.00%, 8/01/26 600 601,452

County of Lee Florida, Refunding ARB, Series A, AMT,
5.38%, 10/01/32 2,000 2,210,560

County of Miami-Dade Florida, RB, Miami International
Airport, Series A, AMT (NPFGC), 6.00%, 10/01/29 3,275 3,282,401

County of Miami-Dade Florida, Refunding RB, Special
Obligation, Sub-Series B, 5.00%, 10/01/31 (a) 790 889,959

Hillsborough County IDA, RB, National Gypsum Co.,
AMT:

Series A, 7.13%, 4/01/30 2,500 2,506,250

Series B, 7.13%, 4/01/30 2,290 2,290,870

Jacksonville Florida Port Authority, Refunding RB, AMT,
5.00%, 11/01/38 225 243,203

Manatee County Housing Finance Authority, RB, Series
A, AMT (Ginnie Mae), 5.90%, 9/01/40 585 636,363

13,956,327

Georgia — 0.5%

Municipal Electric Authority of Georgia, Refunding RB,
Project One, Sub-Series D, 6.00%, 1/01/23 880 1,046,364

Illinois — 13.7%

Chicago Illinois Board of Education, GO, Series A:
5.00%, 12/01/42 2,800 3,042,480

5.50%, 12/01/39 1,815 2,124,584

Chicago Illinois Transit Authority, RB, Sales Tax Receipts
Revenue, 5.25%, 12/01/36 615 705,842

Chicago Park District, GO, Harbor Facilities, Series C,
5.25%, 1/01/40 100 114,240

City of Chicago Illinois, GARB, O'Hare International
Airport, General Third Lien, Series C, 6.50%, 1/01/41 6,065 7,527,575

City of Chicago Illinois, Refunding RB, Sales Tax, Series
A, 5.25%, 1/01/38 765 885,411

Cook County Forest Preserve District, GO, Series C,
5.00%, 12/15/32 570 655,905

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Cook County Forest Preserve District, GO, Refunding, Ltd Tax Project, Series B, 5.00%, 12/15/32	265	304,938
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BLACKROCK MUNIYIELD INVESTMENT FUND OCTOBER 31, 2012 1

BlackRock MuniYield Investment Fund (MYF)**Schedule of Investments (continued)****(Percentages shown are based on Net Assets)**

	Par (000)	Value
Municipal Bonds		
Illinois (concluded)		
Illinois Finance Authority, RB, Carle Foundation, Series A, 6.00%, 8/15/41	\$4,000	\$ 4,801,000
Illinois Finance Authority, Refunding RB:		
Central DuPage Health, Series B, 5.38%, 11/01/39	1,200	1,340,196
Northwestern Memorial Hospital, Series A, 6.00%, 8/15/39	4,160	4,890,454
Metropolitan Pier & Exposition Authority, Refunding RB, McCormick Place Project, Series B, 5.00%, 12/15/28	2,010	2,360,283
Railsplitter Tobacco Settlement Authority, RB:		
5.50%, 6/01/23	1,370	1,599,995
6.00%, 6/01/28	390	463,008
		30,815,911
Indiana — 4.2%		
Indiana Municipal Power Agency, RB, Series B, 6.00%, 1/01/39	4,525	5,475,024
Indianapolis Local Public Improvement Bond Bank, RB, Series F, 5.25%, 2/01/36	3,360	3,895,416
		9,370,440
Kansas — 3.2%		
Kansas Development Finance Authority, Refunding RB, Adventist Health:		
5.50%, 11/15/29	3,250	3,804,775
Series A, 5.00%, 11/15/32	3,000	3,472,920
		7,277,695
Kentucky — 1.3%		
Kentucky Economic Development Finance Authority, RB, Owensboro Medical Health System, Series A, 6.38%, 6/01/40	1,300	1,547,000
Louisville & Jefferson County Metropolitan Government Parking Authority, RB, Series A, 5.75%, 12/01/34	1,200	1,489,812
		3,036,812
Louisiana — 0.7%		
Louisiana Local Government Environmental Facilities & Community Development Authority, RB, Series A-1, 6.50%,	1,420	1,656,771

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11/01/35

Maine — 1.4%

Maine Health & Higher Educational Facilities Authority, RB, Maine General Medical Center, 7.50%, 7/01/32	2,500	3,196,575
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	Par (000)	Value
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Municipal Bonds

Massachusetts — 3.5%

Massachusetts Development Finance Agency, RB, Wellesley College, Series J, 5.00%, 7/01/42	\$660	\$ 771,837
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Massachusetts HFA, Refunding HRB, AMT:

Series B, 5.50%, 6/01/41	3,000	3,238,800
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Series F, 5.70%, 6/01/40	2,015	2,170,095
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Massachusetts HFA, Refunding RB, Series C, AMT, 5.35%, 12/01/42	1,630	1,754,613
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7,935,345

Michigan — 2.7%

Lansing Board of Water & Light Utilities, RB, Series A, 5.50%, 7/01/41	1,805	2,144,015
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Michigan State Building Authority, Refunding RB, Series I, 6.00%, 10/15/38	1,250	1,445,725
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Royal Oak Hospital Finance Authority Michigan, Refunding RB, William Beaumont Hospital, 8.25%, 9/01/39	1,970	2,540,315
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6,130,055

Mississippi — 1.6%

Mississippi Development Bank, Refunding RB, Jacksonville Mississippi Water & Sewer System Project, Series A (AGM), 5.00%, 9/01/30	3,010	3,510,864
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Nevada — 3.2%

City of Las Vegas Nevada, GO, Limited Tax, Performing Arts Center, 6.00%, 4/01/34	2,850	3,356,531
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County of Clark Nevada, RB, Series B, 5.75%, 7/01/42	3,375	3,882,465
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7,238,996

New Jersey — 3.0%

New Jersey EDA, Refunding RB, New Jersey American Water Co., Inc. Project, Series A, AMT, 5.70%, 10/01/39	2,250	2,521,170
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New Jersey Transportation Trust Fund Authority, RB,
Transportation System:

Series A, 5.88%, 12/15/38	2,670	3,107,666
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Series B, 5.25%, 6/15/36	1,000	1,155,810
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6,784,646

New York — 4.0%

New York Liberty Development Corp., Refunding RB,

Second Priority, Bank of America Tower at One Bryant Park 1,200 1,393,920

Project, 6.38%, 7/15/49

New York State Dormitory Authority, RB, Series B:

5.00%, 3/15/37 3,600 4,155,696

BLACKROCK MUNIYIELD INVESTMENT FUND OCTOBER 31, 2012

2

BlackRock MuniYield Investment Fund (MYF)**Schedule of Investments (continued)****(Percentages shown are based on Net Assets)**

	Par (000)	Value
Municipal Bonds		
New York (concluded)		
New York State Dormitory Authority, RB, Series B (concluded):		
5.00%, 3/15/42	\$2,000	\$ 2,296,440
New York State Thruway Authority, Refunding RB, Series I, 5.00%, 1/01/37	1,030	1,173,613
		9,019,669
North Carolina — 1.0%		
North Carolina Medical Care Commission, RB, Duke University Health System, Series A, 5.00%, 6/01/32		
	2,010	2,344,444
Pennsylvania — 3.9%		
Pennsylvania Economic Development Financing Authority, RB, American Water Co. Project, 6.20%, 4/01/39		
	1,075	1,259,341
Pennsylvania Turnpike Commission, RB, Sub-Series A:		
5.63%, 12/01/31	2,455	2,893,242
6.00%, 12/01/41	3,000	3,421,710
Philadelphia Hospitals & Higher Education Facilities Authority, Refunding RB, Children's Hospital of Philadelphia, Series D, 5.00%, 7/01/32		
	1,030	1,199,816
		8,774,109
Puerto Rico — 0.5%		
Puerto Rico Sales Tax Financing Corp., RB, First		
	1,000	1,106,010

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Sub-Series A, 6.00%,
8/01/42

South Carolina — 0.7%

City of North Charleston South Carolina, RB, Public Facilities Corp., 5.00%, 6/01/35	1,340	1,519,922
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Texas — 10.2%

Central Texas Regional Mobility Authority, Refunding RB, Senior Lien: 5.75%, 1/01/31	1,000	1,167,850
6.00%, 1/01/41	2,600	3,031,990

Conroe ISD Texas, GO, School Building, Series A, 5.75%, 2/15/35	1,800	2,192,652
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Harris County Health Facilities Development Corp., Refunding RB, Memorial Hermann Healthcare System, Series B, 7.25%, 12/01/35	800	1,003,944
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Katy ISD Texas, GO, Refunding, School Building, Series A (PSF-GTD), 5.00%, 2/15/42	1,115	1,305,419
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Lamar Texas Consolidated ISD, GO, Refunding, School House, Series A (PSF-GTD), 5.00%, 2/15/45	1,500	1,744,215
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Par
(000) Value

Municipal Bonds

Texas (concluded) North Texas Tollway Authority, Refunding RB, Series K-1 (AGC), 5.75%, 1/01/38	\$1,000	\$ 1,143,440
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Tarrant County Cultural Education Facilities Finance Corp., RB, Scott & White Healthcare, 6.00%, 8/15/45	3,795	4,507,853
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Texas Private Activity Bond Surface	1,700	2,061,998
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Transportation Corp., RB, Senior Lien, NTE Mobility Partners LLC, North Tarrant Express Managed Lanes Project, 6.88%, 12/31/39		
Texas State Turnpike Authority, RB, First Tier, Series A (AMBAC), 5.00%, 8/15/42	1,500	1,509,795
University of Texas System, Refunding RB, Financing System Series B, 5.00%, 8/15/43	2,680	3,166,554
		22,835,710
Virginia — 3.5%		
Fairfax County IDA, RB, Inova Health System Project, Series A, 5.00%, 5/15/40	1,035	1,163,547
Virginia Public School Authority, RB, School Financing, 6.50%, 12/01/35	1,500	1,862,595
Virginia Resources Authority, RB, Infrastructure, 5.00%, 11/01/42	1,840	2,148,973
Virginia Small Business Financing Authority, RB, Senior Lien, Elizabeth River Crossing OPCO LLC Project, AMT, 6.00%, 1/01/37	2,440	2,806,781
		7,981,896
Wisconsin — 2.9%		
Wisconsin Health & Educational Facilities Authority, RB, Ascension Health, Series D, 5.00%, 11/15/41	1,840	2,053,771
Wisconsin Health & Educational Facilities Authority, Refunding RB, Froedtert & Community Health: 5.25%, 4/01/39	3,470	3,858,328
Series A, 5.00%, 4/01/42	470	524,454

6,436,553

Total Municipal Bonds – 85.4% 192,099,131

Municipal Bonds Transferred to Tender Option
Bond (TOB) Trusts (b)

California — 20.1%

Bay Area Toll Authority,

Refunding RB, San

Francisco Bay Area, Series 2,680 3,120,533

F-1, 5.63%, 4/01/44

BLACKROCK MUNIYIELD INVESTMENT FUND OCTOBER 31, 2012

3

BlackRock MuniYield Investment Fund (MYF)**Schedule of Investments (continued)****(Percentages shown are based on Net Assets)**

	Par (000)	Value
Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts (b)		
California (concluded)		
California Educational Facilities Authority, RB, University of Southern California, Series A, 5.25%, 10/01/39 (c)	\$4,200	\$ 4,918,410
Grossmont Union High School District, GO, Election of 2008, Series B, 5.00%, 8/01/40	6,000	6,718,320
Los Angeles Community College District California, GO, Refunding, Series A, 6.00%, 8/01/33	7,697	9,719,953
Los Angeles Community College District California, GO, Series C, 5.25%, 8/01/39 (c)	5,250	6,341,265
Los Angeles Unified School District California, GO, Series I, 5.00%, 1/01/34	790	894,746
San Diego Public Facilities Financing Authority, Refunding RB, Series B, 5.50%, 8/01/39	8,412	9,862,130
University of California, RB, Series O, 5.75%, 5/15/34	3,000	3,602,920
		45,178,277
Colorado — 1.1%		
Colorado Health Facilities Authority, Refunding RB, Catholic Health, Catholic Healthcare, Series A, 5.50%, 7/01/34 (c)	2,149	2,457,954
District of Columbia — 3.4%		
District of Columbia, RB, Series A, 5.50%, 12/01/30 (c)	2,805	3,517,386
District of Columbia Water & Sewer Authority, Refunding RB, Series A, 5.50%, 10/01/39	3,507	4,092,248
		7,609,634
Florida — 2.9%		
County of Miami-Dade Florida, RB, Transit System, Sales Surtax, 5.00%, 7/01/42	980	1,105,636
Hillsborough County Aviation Authority, RB, Series A, AMT (AGC), 5.50%, 10/01/38	3,869	4,222,986
Lee County Housing Finance Authority, RB, Multi-County Program, Series A-2, AMT (Ginnie Mae), 6.00%, 9/01/40	1,080	1,148,051
		6,476,673
Illinois — 4.6%		
City of Chicago Illinois Waterworks, Refunding RB, Water System, Second Lien, 5.00%, 11/01/42	1,559	1,772,181
	5,300	6,600,620

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Illinois Finance Authority, RB, University of Chicago, Series B, 6.25%,
7/01/38

	Par (000)	Value
Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts (b)		
Illinois (concluded)		
Illinois State Toll Highway Authority, RB, Series B, 5.50%, 1/01/33	\$1,750	\$ 1,967,484
		10,340,285
Massachusetts — 1.5%		
Massachusetts School Building Authority, RB, Sales Tax, Senior Series B, 5.00%, 10/15/41	2,950	3,427,900
Nevada — 9.0%		
Clark County Water Reclamation District, GO:		
Limited Tax, 6.00%, 7/01/38	5,000	6,138,450
Series B, 5.50%, 7/01/29	5,668	6,992,496
Las Vegas Valley Water District, GO, Refunding, 5.00%, 6/01/28	6,070	7,117,864
		20,248,810
New Hampshire — 1.1%		
New Hampshire Health & Education Facilities Authority, RB, Dartmouth College, 5.25%, 6/01/39 (c)	2,159	2,582,258
New Jersey — 3.2%		
New Jersey State Housing & Mortgage Finance Agency, RB, S/F Housing, Series CC, 5.25%, 10/01/29	2,251	2,492,822
New Jersey Transportation Trust Fund Authority, RB, Transportation System, Series A (AGM), 5.00%, 12/15/32	4,000	4,617,960
		7,110,782
New York — 15.0%		
Hudson New York Yards Infrastructure Corp., RB, Senior Series A, 5.75%, 2/15/47	1,290	1,522,942
New York City Municipal Water Finance Authority, Refunding RB:		
Second General Resolution, Fiscal Year 2012, Series BB, 5.25%, 6/15/44	4,408	5,179,075
Series FF, 5.00%, 6/15/45	3,859	4,412,798
Series FF-2, 5.50%, 6/15/40	2,504	3,001,147
New York City Transitional Finance Authority, RB:		
Fiscal 2009, Series S-3, 5.25%, 1/15/39	2,499	2,821,687
Subseries E-1, 5.00%, 2/01/42	1,720	1,982,073
New York Liberty Development Corp., RB, 1 World Trade Center Port Authority Construction, 5.25%, 12/15/43	4,365	5,019,376
New York Liberty Development Corp., Refunding RB, 4 World Trade Center Project, 5.75%, 11/15/51	2,560	3,018,215

BlackRock MuniYield Investment Fund (MYF)**Schedule of Investments (continued)****(Percentages shown are based on Net Assets)**

	Par (000)	Value
Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts (b)		
New York (concluded)		
New York State Dormitory Authority, ERB, Series B, 5.25%, 3/15/38	\$5,700	6,880,299
		33,837,612
Ohio — 1.5%		
County of Allen Ohio, Refunding RB, Catholic Healthcare, Series A, 5.25%, 6/01/38	3,120	3,458,895
Puerto Rico — 0.9%		
Puerto Rico Sales Tax Financing Corp., Refunding RB, Series C, 5.25%, 8/01/40	1,750	1,920,923
South Carolina — 1.7%		
South Carolina State Public Service Authority, Refunding RB, Santee Cooper, Series A, 5.50%, 1/01/38 (c)	3,240	3,845,200
Texas — 8.4%		
City of San Antonio Texas, Refunding RB, Series A, 5.25%, 2/01/31 (c)	3,989	4,796,443
Harris County Cultural Education Facilities Finance Corp., RB, Hospital, Texas Children's Hospital Project, 5.50%, 10/01/39	5,400	6,427,296
North Texas Tollway Authority, RB, Special Projects, System, Series A, 5.50%, 9/01/41	3,480	4,144,610
Waco Educational Finance Corp., Refunding RB, Baylor University, 5.00%, 3/01/43	3,000	3,443,040
		18,811,389
Utah — 1.0%		
City of Riverton Utah Hospital, RB, IHC Health Services Inc., 5.00%, 8/15/41	1,995	2,186,420
Virginia — 0.9%		
Fairfax County IDA Virginia, Refunding RB, Health Care, Inova Health System, Series A, 5.50%, 5/15/35	1,749	2,010,008
Washington — 1.4%		
University of Washington, Refunding RB, Series A, 5.00%, 7/01/41	2,744	3,206,993
Total Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts – 77.7%		174,710,013
Total Long-Term Investments (Cost – \$325,295,166) – 163.1%		366,809,144

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	Shares	Value
Short-Term Securities		
FII Institutional Tax-Exempt Fund (d)(e)	1,099,153	\$ 1,099,153
Total Short-Term Securities (Cost – \$1,099,153) – 0.5%		1,099,153
Total Investments (Cost - \$326,394,319*) – 163.6%		367,908,297
Other Assets Less Liabilities – 1.1%		2,518,123
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable – (38.3)%		(86,209,252)
VRDP Shares, at Liquidation Value – (26.4)%		(59,400,000)
Net Assets Applicable to Common Shares – 100.0%		\$ 224,817,168

*As of October 31, 2012, gross unrealized appreciation and gross unrealized depreciation based on cost for federal income tax purposes were as follows:

Tax cost	\$241,245,675
Gross unrealized appreciation	\$41,546,426
Gross unrealized depreciation	(1,047,635)
Net unrealized appreciation	\$40,498,791

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

Counterparty	Value	Unrealized Appreciation
Citigroup, Inc.	\$889,959	\$ 2,994

- (b) 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 is \$14,627,442.
- (c) Investments in issuers considered to be an affiliate of the Fund during the period ended October 31, 2012, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:
- (d)

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Affiliate	Shares Held at July 31, 2012	Net Activity	Shares Held at October 31, 2012	Income
FII Institutional Tax-Exempt Fund	176,582	922,571	1,099,153	\$ 68

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

BLACKROCK MUNIYIELD INVESTMENT FUND OCTOBER 31, 2012 5

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

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. American Municipal
AMBAC	Bond Assurance Corp.
AMT	Alternative Minimum Tax (subject to)
ARB	Airport Revenue Bonds
EDA	Economic Development Authority
ERB	Education Revenue Bonds
GARB	General Airport Revenue Bonds
GO	General Obligation Bonds Government
Ginnie Mae	National Mortgage Association Housing
HFA	Finance Agency
HRB	Housing Revenue Bonds

IDA	Industrial Development Authority
IDB	Industrial Development Board
ISD	Independent School District
M/F	Multi-Family National Public
NPFGC	Finance Guarantee Corp. Permanent
PSF-GTD	School Fund Guaranteed
RB	Revenue Bonds
S/F	Single-Family

Fair Value

Measurements -

Various inputs are used in determining the fair value of investments.

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)

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 is based on the pricing

transparency
of the
investment
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 other
significant
accounting
policies,
please
refer to the
Fund's
most
recent
financial
statements
as
contained
in its
annual
report.

The following
table
summarizes the
Fund's
investments
categorized in
the disclosure
hierarchy as of
October 31,
2012:

	Level 1	Level 2	Level 3	Total
Assets:				
Investments:				
Long-Term Investments ¹	—	\$366,809,144		-\$366,809,144
Short-Term Securities	\$1,099,153	—		—1,099,153
Total	\$1,099,153	\$366,809,144		-\$367,908,297

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

Certain of the Fund's liabilities are held at carrying amount, which approximates fair value for financial reporting purposes. As of October 31, 2012, such liabilities are categorized within the disclosure hierarchy as follows:

	Level 1	Level 2	Level 3	Total
Liabilities:				
TOB trust certificates	—	\$(86,163,831)	—	\$ (86,163,831)
VRDP Shares	—	(59,400,000)	—	(59,400,000)
Total	—	\$(145,563,831)	—	\$ (145,563,831)

There were no transfers between levels during the period ended October 31, 2012.

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: December 21, 2012

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: December 21, 2012

By: /s/ Neal J. Andrews

Neal J. Andrews

Chief Financial Officer (principal financial officer) of
BlackRock MuniYield Investment Fund

Date: December 21, 2012