BLACKROCK MUNIYIELD INVESTMENT FUND Form N-Q December 23, 2013
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM N-Q
QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMPANY
Investment Company Act file number 811-06502
Name of Fund: BlackRock MuniYield Investment Fund (MYF)
Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809
Name and address of agent for service: John M. Perlowski, Chief Executive Officer, BlackRock MuniYield Investment Fund, 55 East 52 nd Street, New York, NY 10055
Registrant's telephone number, including area code: (800) 882-0052, Option 4
Date of fiscal year end: 07/31/2014
Date of reporting period: 10/31/2013

Item 1 – Schedule of Investments

BlackRock MuniYield Investment Fund, Inc. (MYF)

Schedule of Investments October 31, 2013 (Unaudited)

(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Alabama — 0.8% City of Selma Alabama IDB, RB, Gulf Opportunity Zone, International Paper Co. Project, Series A, 5.38%, 12/01/35 Courtland IDB, Refunding RB,	\$545	\$532,716
International Paper Co. Projects, Series A, AMT, 5.20%, 6/01/25	1,000	1,003,270
		1,535,986
Alaska — 0.8%		
Alaska Municipal Bond Bank Authority, RB, Series 1, 5.75%, 9/01/33	1,000	1,108,420
Northern Tobacco Securitization Corp., Refunding RB, Tobacco Settlement, Asset-Backed, Series A, 5.00%, 6/01/46	690	474,672
		1,583,092
California — 13.5%		
California Educational Facilities Authority, RB, University of Southern California, Series A, 5.25%, 10/01/38	2,740	2,934,595
California Health Facilities Financing Authority, RB, Sutter Health, Series B, 6.00%, 8/15/42	1,645	1,897,244
California Health Facilities Financing Authority, Refunding RB, Catholic Healthcare West, Series A, 6.00%, 7/01/39	710	773,808
California State Public Works Board, LRB, Department of Corrections and Rehabilitation, Series F, 5.25%, 9/01/33	835	884,265
City of San Jose California, Refunding ARB, Series A-1, AMT, 5.50%, 3/01/30	1,500	1,592,715
Grossmont Union High School District, GO, Election of 2008, Series B, 4.75%, 8/01/45	2,230	2,237,515
Kern Community College District, GO,		
Safety, Repair & Improvement, Election of 2002, Series C, 5.50%, 11/01/33	1,620	1,818,677
	3,600	3,821,724

Los Angeles Department of Water & Power, RB, Sub-Series A-1, 5.25%, 7/01/38		
San Diego Regional Building Authority, RB, County Operations Center & Annex, Series A, 5.38%, 2/01/36	1,310	1,436,860
Municipal Bonds	Par (000)	Value
California (concluded) San Francisco City & County Airports Commission, Refunding ARB, 2nd Series A, AMT:		
5.50%, 5/01/28 5.25%, 5/01/33	\$1,065 S 830	\$1,164,684 864,013
State of California, GO, Various Purposes, 6.00%, 3/01/33	2,535	2,964,201
University of California Medical Center, Refunding RB, Series J, 5.25%, 5/15/38	3,730	3,912,509
		26,302,810
Colorado — 0.9% City & County of Denver Colorado Airport System, ARB, Subordinate System, Series		
A, AMT: 5.50%, 11/15/28 5.50%, 11/15/30 5.50%, 11/15/31	1,000 330 400	1,075,020 349,034 420,140
		1,844,194
Delaware — 0.3% County of Sussex Delaware, RB, NRG Energy, Inc., Indian River Project, 6.00%, 10/01/40	500	514,215
Florida — 10.2% City of Jacksonville Florida, Refunding RB, Series A, 5.25%, 10/01/33 County of Escambia Florida, Refunding	675	721,244
RB, International Paper Co. Project, Series B, AMT, 5.00%, 8/01/26	600	599,976
County of Hillsborough Florida IDA, RB, National Gypsum Co. AMT:		
Series A, 7.13%, 4/01/30 Series B, 7.13%, 4/01/30	2,500 2,290	2,507,075 2,291,030
County of Lee Florida, Refunding ARB, Series A, AMT, 5.38%, 10/01/32	2,000	2,050,980
Delico A, Alvii, J.Jo /0, 10/01/32	350	357,382

County of Manatee Housing Finance Authority, RB, Series A, AMT (Ginnie Mae, Fannie Mae & Freddie Mac), 5.90%, 9/01/40

County of Miami-Dade Florida, RB:

 Seaport, Series B, AMT, 6.25%, 10/01/38
 525
 560,968

 Seaport, Series B, AMT, 6.00%, 10/01/42
 700
 730,793

 Series A, 5.38%, 10/01/33
 1,170
 1,223,013

BlackRock MuniYield Investment Fund, Inc. (MYF)

Schedule of Investments (continued)

(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Florida (concluded) County of Miami-Dade Florida Aviation, Refunding ARB, Series A, AMT, 5.00%, 10/01/31	\$2,440	\$2,471,427
County of Miami-Dade Florida Water & Sewer System, Refunding RB, Series B, 5.25%, 10/01/29	2,795	3,042,777
Hillsborough County Aviation Authority, Refunding RB, Series A, 5.50%, 10/01/29	1,995	2,108,914
Reedy Creek Improvement District, GO, Series A, 5.25%, 6/01/32	1,200	1,287,744
		19,953,323
Georgia — 0.5% Municipal Electric Authority of Georgia, Refunding RB, Project One, Sub-Series D, 6.00%, 1/01/23	880	1,035,109
Illinois — 12.2% City of Chicago Illinois, GARB, O'Hare International Airpor Third Lien, Series C, 6.50%, 1/01/41	t, 6,065	6,820,335
City of Chicago Illinois, Refunding RB, Sales Tax, Series A, 5.25%, 1/01/38	765	798,484
City of Chicago Illinois Transit Authority, RB, Sales Tax Receipts, 5.25%, 12/01/36	615	630,848
County of Cook Illinois Community College District No. 508, GO, City College of Chicago, 5.50%, 12/01/38	795	834,495
Illinois Finance Authority, RB: Carle Foundation, Series A, 6.00%, 8/15/41 University of Chicago, Series B, 5.50%, 7/01/37	4,000 1,000	4,324,720 1,087,870
Illinois Finance Authority, Refunding RB: Central DuPage Health, Series B, 5.38%, 11/01/39 Northwestern Memorial Hospital, Series A, 6.00%, 8/15/39 Railsplitter Tobacco Settlement Authority, RB:	1,200 4,160	1,229,952 4,660,864
5.50%, 6/01/23 6.00%, 6/01/28	1,370 390	1,506,466 418,158
State of Illinois, GO, Various Purposes: 5.50%, 7/01/33	1,000	1,020,970
Municipal Bonds	Par (000)	Value

Illinois (concluded)

State of Illinois, GO, Various Purposes (concluded):

5.50%, 7/01/38	\$415	\$416,511
		23,749,673
Indiana — 4.7%		
Indiana Finance Authority, RB, Private Activity Bond, Ohio River Bridges East End Crossing Project, Series A, AMT, 5.00%, 7/01/44	555	495,293
Indiana Municipal Power Agency, RB, Series B, 6.00%, 1/01/39	4,525	5,025,827
Indianapolis Local Public Improvement Bond Bank, RB, Series F, 5.25%, 2/01/36	3,360	3,561,096
		9,082,216
Kansas — 1.8% Kansas Development Finance Authority, Refunding RB, Adventist Health System/Sunbelt Obligated Group, Series C, 5.50%, 11/15/29	3,275	3,576,562
Kentucky — 0.7% Louisville & Jefferson County Metropolitan Government Parking Authority, RB, Series A, 5.75%, 12/01/34	1,200	1,368,192
Louisiana — 2.0% Louisiana Local Government Environmental Facilities & Community Development Authority, RB, Westlake Chemical Corp. Projects, Series A-1, 6.50%, 11/01/35 Tobacco Settlement Financing Corp., Refunding RB,	1 1,420	1,528,886
Asset-Backed, Series A: 5.50%, 5/15/28 5.50%, 5/15/29	1,120 1,195	, ,
		3,929,311
Maine — 1.4% Maine Health & Higher Educational Facilities Authority, RB Maine General Medical Center, 7.50%, 7/01/32	' 2,500	2,804,100

BlackRock MuniYield Investment Fund, Inc. (MYF)

Schedule of Investments (continued)

(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Massachusetts — 5.2% Massachusetts HFA, Refunding, HRB, AMT:		
Series B, 5.50%, 6/01/41	\$3,000	\$3,052,830
Series C, 5.35%, 12/01/42		1,998,920
Series F, 5.70%, 6/01/40	1,995	2,041,643
Massachusetts School		
Building Authority, RB, Senior Series B, 5.00%, 10/15/41	2,950	3,081,777
		10,175,170
Michigan — 2.9% City of Lansing Michigan,		
RB, Board of Water & Light, Series A, 5.50%,	1,805	1,935,339
7/01/41 Michigan State Building Authority, Refunding RB, Facilities Program, Series I, 6.00%, 10/15/38	1,250	1,393,462
Royal Oak Hospital Finance Authority, Refunding RB, William Beaumont Hospital, 8.25%, 9/01/39	1,970	2,369,674
		5,698,475
Mississippi — 1.0% Mississippi Development Bank, RB, Special Obligation, Jackson Water & Sewer System Project (AGM), 6.88%, 12/01/40	1,220	1,459,034
Mississippi State University Educational Building Corp., Refunding RB, 5.25%, 8/01/38		472,613
		4 004 5:-

1,931,647

Nevada — 3.5%
City of Las Vegas Nevada,
GO, Limited Tax,
Performing Arts Center,
6.00%, 4/01/34
County of Clark Nevada
Airport System, ARB,
Series B, 5.75%, 7/01/42

2,850
3,116,304
3,375
3,671,055

6,787,359

New Jersey — 5.2%
New Jersey EDA,
Refunding RB, New Jersey
American Water Co., Inc.
Project, Series A, AMT,
5.70%, 10/01/39
New Jersey Transportation
Trust Fund Authority, RB,
Transportation System:
Series A, 5.88%, 12/15/38 2,670 2,983,752
Series AA, 5.50%, 6/15/39 2,475 2,648,473

Municipal Bonds Par (000) Value

New Jersey (concluded) Rutgers The State University of New Jersey, Refunding RB:

Series J, 5.00%, 5/01/32 \$1,250 \$1,356,225 Series L, 5.00%, 5/01/32 775 840,859

10,209,719

New York — 0.7%

New York Liberty

Development Corp.,

Refunding RB, Second

Priority, Bank of America 1,200 1,271,244

Tower at One Bryant Park

Project, Class 3, 6.38%,

7/15/49

Ohio — 2.7%
County of Allen Ohio,
Refunding RB, Hospital
Facilities, Catholic

facilities, Catholic 3,115 3,173,842

Healthcare Partners, Series A, 5.25%, 6/01/38

Ohio State Turnpike Commission, RB, Junior Lien, Infrastructure

Projects, Series A-1:

 5.25%, 2/15/30
 1,000
 1,079,210

 5.25%, 2/15/31
 1,000
 1,074,430

5,327,482

Pennsylvania — 3.6% Pennsylvania Economic Development Financing

Authority, RB, American 1,075 1,170,224

Water Co. Project, 6.20%,

4/01/39

Pennsylvania Turnpike Commission, RB,

Sub-Series A:

5.63%, 12/01/31 2,455 2,631,588 6.00%, 12/01/41 3,000 3,252,990

7,054,802

South Carolina — 1.6% Charleston County Airport District, ARB, AMT Series

A:

5.50%, 7/01/41 1,000 1,030,920 6.00%, 7/01/38 1,955 2,090,892

3,121,812

Texas — 11.2%

Central Texas Regional Mobility Authority,

Refunding RB, Senior Lien:

5.75%, 1/01/31 1,000 1,039,750 6.00%, 1/01/41 2,600 2,655,848

City of Beaumont Texas,

GO, Certificates of 1,555 1,683,661

Obligation, 5.25%, 3/01/37

BlackRock MuniYield Investment Fund, Inc. (MYF)

Schedule of Investments (continued)

(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Texas (concluded)		
Conroe Texas ISD, GO,		
School Building, Series A,	\$1,800	\$2,008,782
5.75%, 2/15/35		
County of Tarrant Texas		
Cultural Education		
Facilities Finance Corp.,	3,795	4,322,695
RB, Scott & White		
Healthcare, 6.00%, 8/15/45		
Dallas-Fort Worth		
International Airport, ARB,		
Joint Improvement AMT:		
Series A, 5.00%, 11/01/38	1,365	1,299,562
Series D, 5.00%, 11/01/38	650	623,155
Series H, 5.00%, 11/01/37	1,535	1,472,878
North Texas Tollway		
Authority, Refunding RB,	1,000	1,094,050
First Tier, Series K-1	1,000	1,024,030
(AGC), 5.75%, 1/01/38		
Red River Education		
Financing Corp., RB, Texas	710	768,376
Christian University	710	700,370
Project, 5.25%, 3/15/38		
Texas Private Activity		
Bond Surface		
Transportation Corp., RB,		
Senior Lien, NTE Mobility	1,700	1,834,487
Partners LLC, North	,	, ,
Tarrant Express Managed		
Lanes Project, 6.88%,		
12/31/39		
Waco Educational Finance		
Corp., Refunding RB,	3,000	3,059,190
Baylor University, 5.00%,		
3/01/43		
		21 962 424
		21,862,434
Virginia — 2.1%		
City of Lexington Virginia	560	587,115
IDA, RB, Washington &	500	501,115
Lee University, 5.00%,		
200 Om (Orong, 5.00 %,		

1/01/43

Virginia Public School

Authority, RB, School 800

Financing, 6.50%, 12/01/18

1,013,360

Virginia Small Business

Financing Authority, RB,

Senior Lien, Elizabeth

2,440 2,526,401

River Crossings OpCo LLC Project, AMT, 6.00%,

1/01/37

4,126,876

Wisconsin — 1.8%

Wisconsin Health &

Educational Facilities

Authority, Refunding RB,

3,470 3,561,851

Froedtert & Community

Health, Inc., Series C,

5.25%, 4/01/39

Total Municipal Bonds — **91.3%** 178,407,654

Municipal Bonds Transferred

to Tender Option Bond Value (000)

(TOB) Trusts (b)

California — 21.7%

Bay Area Toll Authority,

Refunding RB, San

\$2,680 \$2,881,129

Francisco Bay Area, Series

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

California Educational

Facilities Authority, RB,

University of Southern 4,200 4,497,906

California, Series B, 5.25%,

10/01/39 (c)

Grossmont Union High

School District, GO,

6,000 6,186,660

5.00%, 8/01/40

Los Angeles Community

College District California,

Election of 2008, Series B,

GO, Election of 2008, 5,250 5,661,810

Series C, 5.25%, 8/01/39

Los Angeles Community 7,697 8,863,824

College District California,

GO, Refunding, Election of

2000 9 : 4 600%		
2008, Series A, 6.00%,		
8/01/33		
Los Angeles Unified		
School District California,	790	820,613
GO, Series I, 5.00%,	790	620,013
1/01/34		
San Diego Public Facilities		
Financing Authority Water,	0 412	9,132,522
RB, Series B, 5.50%,	0,412	9,132,322
8/01/39		
University of California,		
RB, Series O, 5.75%,	3,000	3,387,410
5/15/34		
University of California,		
Refunding RB, Limited	1,000	1 040 020
Project, Series G, 5.00%,	1,000	1,048,938
5/15/37		
		42 480 81

42,480,812

Colorado — 1.2% Colorado Health Facilities Authority, Refunding RB, Catholic Health Initiatives, 2,149 2,354,109 Series A, 5.50%, 7/01/34 (c)

District of Columbia — 3.5%
District of Columbia, RB,
Series A, 5.50%, 12/01/30 2,805 3,144,704
(c)
District of Columbia Water
& Sewer Authority,
Refunding RB, Senior Lien,
Series A, 5.50%, 10/01/39

6,915,916

Florida — 2.5%
County of Lee Housing
Finance Authority, RB,
Multi-County Program,
Series A-2, (Ginnie Mae),
AMT, 6.00%, 9/01/40

BlackRock MuniYield Investment Fund, Inc. (MYF)

Schedule of Investments (continued)

(Percentages shown are based on Net Assets)

Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts (b)	Par (000)	Value
Florida (concluded) Hillsborough County Florida Aviation Authority, RB, Tempa International Airport, Series A, (AGC), AMT, 5.50%, 10/01/38	\$3,869	\$4,119,735
		4,841,875
Illinois — 4.0%		
Illinois Finance Authority, RB, University of Chicago, Series B, 6.25%, 7/01/38	5,300	5,849,027
Illinois State Toll Highway Authority, RB, Senior Priority, Series B, 5.50%, 1/01/33	1,750	1,892,672
		7,741,699
Nevada — 9.6% County of Clark Nevada Water Reclamation District, GO:		
Limited Tax, 6.00%, 7/01/38 Series B, 5.50%, 7/01/29	5,000 5,668	5,670,600 6,498,638
Las Vegas Valley Water District, GO, Refunding, Series C, 5.00%, 6/01/28	6,070	6,558,271
		18,727,509
New Hampshire — 1.2% New Hampshire Health & Education Facilities Authority, RB, Dartmouth College, 5.25%, 6/01/39 (c)	2,159	2,348,086
New Jersey — 3.9% New Jersey Housing & Mortgage Finance State Agency, RB, S/F Housing, Series CC, 5.25%, 10/01/29 New Jersey Transportation Trust Fund	2,251	2,347,337
Authority, RB, Transportation System: Series A (AMBAC), 5.00%, 12/15/32 Series B, 5.25%, 6/15/36 (c)	4,000 1,000	4,195,280 1,051,411

7,594,028

New York — 14.7% Hudson Yards Infrastructure Corp., RB, Senior, Series A, 5.75%, 2/15/47 (c)	1,290	1,366,375
Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts (b)	Par (000)	Value
New York (concluded) New York City Municipal Water Finance Authority, Refunding RB, Water & Sewer System Second General Resolution:		
	\$4,408 \$	\$4,652,344
Fiscal 2012, Series FF, 5.00%, 6/15/45		4,000,792
Series FF-2, 5.50%, 6/15/40		2,681,585
New York City Transitional Finance	_,,,,,,	2,001,000
Authority, BARB, Series S-3, 5.25%, 1/15/39	2,499	2,740,249
New York Liberty Development Corp., RB, 1 World Trade Center Port Authority Construction, 5.25%, 12/15/43	4,365	4,555,270
New York Liberty Development Corp., Refunding RB, 4 World Trade Center Project, 5.75%, 11/15/51 (c)	2,560	2,732,877
New York State Dormitory Authority, ERB, Personal Income Tax, Series B, 5.25%, 3/15/38	5,700	6,038,295
		28,767,787
South Carolina — 1.8% South Carolina State Public Service Authority, Refunding RB, Santee Cooper, Series A, 5.50%, 1/01/38 (c)	3,240	3,508,531
Texas — 7.2% City of San Antonio Texas Public Service Board, Refunding RB, Electric and Gas System, Series A, 5.25%, 2/01/31 (c) Harris County Cultural Education	3,989	4,410,809
Facilities Finance Corp., RB, Texas Children's Hospital Project, 5.50%, 10/01/39	5,400	5,931,360
North Texas Tollway Authority, RB, Special Projects, System, Series A, 5.50%, 9/01/41	3,480	3,757,426
		14 000 505

Utah — 1.0% City of Riverton Utah, RB, IHC Health Services, Inc., 5.00%, 8/15/41 1,995 2,021,360

BlackRock MuniYield Investment Fund, Inc. (MYF)

Schedule of Investments (continued)

(Percentages shown are based on Net Assets)

Municipal

Bonds

Transferred

to

Ten**Har**

Value

Opt(000) Bond

(TOB)

Trusts

(b)

Virginia — 1.0%

County

of

Fairfax

Virginia

IDA,

Refunding

RB,

Health Care, 749 \$1,859,176

Inova

Health

System,

Series

A,

5.50%,

5/15/35

Total

Municipal

Bonds

Transferred

to Tender

143,260,483

Option Bond

(TOB)

Trusts —

73.3%

Total

321,668,137

Long-Term

Investments

(Cost —

\$305,079,817)

— 164.6%

Short-Term

S&harities

FFI

Institutional

Tax-Exempt 1,083,349 1,083,349 Fund,

0.03%

(d)(e)

Total

Short-Term

Securities (Cost —

1,083,349

\$1,083,349)

— 0.5%

Total

Investments

(Cost — 322,751,486

\$306,163,166*)

— 165.1%

Other

Assets

8,568,713 Less

Liabilities —

4.4%

Liability

for TOB

Trust

Certificates,

Including

(76,481,531)

Interest Expense

and Fees

Payable —

(39.1%)

VRDP

Shares, at

Liquidation (59,400,000)

Value —

(30.4%)

Net Assets

Applicable

\$195,438,668

Common

Shares —

100.0%

As of October 31, 2013, gross unrealized appreciation and depreciation based on cost for federal income tax *purposes were as follows:

Tax cost \$230,639,826 Gross unrealized appreciation \$17,768,812 Gross unrealized depreciation (2,123,443) Net unrealized appreciation \$15,645,369

Notes to Schedule of Investments

- (a) US government securities, held in escrow, are used to pay interest on this security, as well as to retire the bond in full at the date indicated, typically at a premium to par.
- (b) Represent bonds transferred to a TOB. In exchange the Fund acquired residual interest certificates. These bonds 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
- (c) the security contributed to the TOB trust. In the case of a shortfall, the aggregate maximum potential amount the Fund could ultimately be required to pay under the agreements, which expire from 10/01/16 to 11/15/19 is \$18,095,736.
- (d) Investments in issuers considered to be an affiliate of the Fund during the period ended October 31, 2013, 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, 2013	Net Activity	Shares Held at October 31, 2013	Income
FFI Institutional Tax-Exempt Fund	7,703,960(6,	620,611)	1,083,349	\$187

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

Schedule of Investments (continued) BlackRock MuniYield Investment Fund, Inc. (MYF)

Portfolio Abbreviations

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

AGC Assured 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
EDA Economic Development Authority

ERB Education Revenue Bonds

Fannie Mae Federal National Mortgage Association Freddie Mac Federal Home Loan Mortgage Corporation

GARB General Airport Revenue Bonds

Ginnie Mae Government National Mortgage Association

GO General Obligation Bonds HFA Housing Finance Agency HRB Housing Revenue Bonds

IDA Industrial Development AuthorityIDB Industrial Development BoardISD Independent School District

RB Revenue Bonds S/F Single Family

[•]Financial futures contracts as of October 31, 2013 were as follows:

Contract Sold	SIssue	Exchange	Expiration	Notional Value	Unrealized Depreciation
(120)	10-Year US Treasury Note	e Chicago Board of Trade	December 2013	USD15,283,125	\$(9,506)

Schedule of Investments (continued) BlackRock MuniYield Investment Fund, Inc. (MYF)

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

Level 1 — unadjusted price quotations in active markets/exchanges for identical assets 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.

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

The following tables summarize the Fund's investments and derivative financial instruments categorized in the disclosure hierarchy as of October 31, 2013:

	Le	evel 1	Level 2		Level 3	Total
Assets: Investments ¹ : Long-Term Investments ¹ Short-Term Securities				321,668,137 —		\$321,668,137 1,083,349
Total	\$	1,083,349	\$	321,668,137	_	\$322,751,486

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

Level 1
$$\begin{array}{ccc} \text{Level} & \text{Level} \\ 2 & 3 \end{array}$$
 Total

Derivative Financial Instruments²

Liabilities:

Interest rate contracts \$ (9,506) — — \$ (9,506)

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

Schedule of Investments (concluded) BlackRock MuniYield Investment Fund, Inc. (MYF)

Certain of the Fund's assets and/or liabilities are held at carrying amount, which approximates fair value for financial reporting purposes. As of October 31, 2013, such assets and/or liabilities are categorized within the disclosure hierarchy as follows:

	L	evel 1	Level 2	Level 3	Total
Assets: Cash pledged for financial futures contracts Liabilities: TOB trust certificates VRDP Shares	\$	•	\$ (76,466,291)		\$213,000 (76,466,291) (59,400,000)
Total	\$	213,0003	\$ (135,866,291)		\$(135,653,291)

There were no transfers between levels during the period ended October 31, 2013.

Item 2 – Controls and Procedures

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.
- 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 23, 2013

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/ John M. Perlowski

John M. Perlowski Chief Executive Officer (principal executive officer) of BlackRock MuniYield Investment Fund

Date: December 23, 2013

By:/s/ Neal J. Andrews

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

Date: December 23, 2013