

BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND

Form N-Q

January 22, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM N-Q

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED

MANAGEMENT INVESTMENT COMPANY

Investment Company Act file number: 811-08349

Name of Fund: BlackRock MuniHoldings Investment Quality Fund (MFL)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: John M. Perlowski, Chief Executive Officer, BlackRock MuniHoldings Investment Quality 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: 08/31/2016

Date of reporting period: 11/30/2015

Item 1 Schedule of Investments

Schedule of Investments November 30, 2015 (Unaudited)

BlackRock MuniHoldings Investment Quality Fund (MFL)

(Percentages shown are based on Net Assets)

	Par	
	(000)	Value
Municipal Bonds		
Alabama 3.6%		
City of Birmingham Alabama Special Care Facilities Financing Authority, RB, Children s Hospital (AGC) (a):		
6.00%, 6/01/19	\$ 10,995	\$ 12,825,448
6.13%, 6/01/19	4,980	5,830,385
City of Selma Alabama IDB, RB, Gulf Opportunity Zone, International Paper Co. Project, Series A, 5.38%, 12/01/35	1,745	1,929,708
		20,585,541
California 24.7%		
California Educational Facilities Authority, RB, University of Southern California, Series A, 5.25%, 10/01/38	8,920	9,927,514
California Health Facilities Financing Authority, RB, Sutter Health, Series B, 6.00%, 8/15/42	5,370	6,423,862
California State University, Refunding RB, Systemwide, Series A, (AGM):		
5.00%, 5/01/17 (a)	3,030	3,218,315
5.00%, 11/01/32	4,930	5,191,438
City & County of San Francisco California Airports Commission, Refunding ARB, 2nd Series A, AMT:		
5.50%, 5/01/28	3,330	3,997,665
5.25%, 5/01/33	2,600	2,982,746
City & County of San Francisco California Airports Commission, Refunding RB, Series A, AMT, 5.00%, 5/01/44	3,430	3,789,121
City of Los Angeles California Department of Water & Power, RB, Power System, Sub-Series A-1, 5.25%, 7/01/38	5,000	5,479,850
City of Manteca California Financing Authority, RB, Manteca Sewer (AGC):		
5.63%, 12/01/33	2,450	2,810,591
5.75%, 12/01/36	3,285	3,762,376
City of San Jose California, Refunding ARB, Series A-1, AMT, 5.75%, 3/01/34	4,450	5,165,961
County of Sacramento California, ARB, Senior Series A (AGC), 5.50%, 7/01/41	5,600	6,165,320
	Par	
	(000)	Value
Municipal Bonds		
California (continued)		
Kern Community College District, GO, Safety, Repair & Improvement, Election of 2002, Series C, 5.50%, 11/01/33	\$ 4,365	\$ 5,207,052
Los Angeles California Unified School District, GO, Election of 2002, Series D, 5.25%, 7/01/25	3,485	3,981,125
Los Angeles Community College District California, GO:		
Election of 2001, Series A (NPPGC), 5.00%, 8/01/17 (a)	10,000	10,720,700
Election of 2008, Series C, 5.25%, 8/01/39	3,375	3,913,718
Los Angeles Municipal Improvement Corp., Refunding LRB, Real Property, Series B (AGC), 5.50%, 4/01/39	2,980	3,340,818
Redondo Beach Unified School District, GO, Election of 2008, Series E, 5.50%, 8/01/34	4,110	4,844,087
San Diego Public Facilities Financing Authority Water, Refunding RB, Series B (AGC), 5.38%, 8/01/34	4,690	5,309,924
State of California, GO, Various Purposes (AGC), 5.50%, 11/01/39	15,000	17,418,300
State of California Public Works Board, LRB, Various Capital Projects, Series I:		
5.50%, 11/01/30	4,500	5,504,220
5.50%, 11/01/31	2,615	3,185,907
5.50%, 11/01/33	2,000	2,436,640
State of California Public Works Board, RB, Department of Corrections & Rehabilitation, Series F, 5.25%, 9/01/33	2,240	2,643,917
Township of Washington California Health Care District, GO, Election of 2004, Series B, 5.50%, 8/01/40	1,685	1,990,288
University of California, Refunding RB, The Regents of Medical Center, Series J, 5.25%, 5/15/38	12,250	14,061,897
		143,473,352
Colorado 2.1%		
City & County of Denver Colorado Airport System, ARB, Series A, AMT:		

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5.50%, 11/15/28

2,700

3,159,594

BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND

NOVEMBER 30, 2015

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Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

	Par	
	(000)	Value
Municipal Bonds		
Colorado (continued)		
City & County of Denver Colorado Airport System, ARB, Series A, AMT (continued):		
5.50%, 11/15/30	\$ 1,040	\$ 1,205,287
5.50%, 11/15/31	1,250	1,443,913
Colorado Health Facilities Authority, RB, Hospital, NCMC, Inc. Project, Series B (AGM),		
6.00%, 5/15/26	5,925	6,587,474
		12,396,268
Connecticut 1.3%		
Connecticut State Health & Educational Facility Authority, Refunding RB, Quinnipiac University,		
Series L, 5.00%, 7/01/45	6,685	7,386,457
Florida 8.9%		
City of Jacksonville Florida, Refunding RB, Series A, 5.25%, 10/01/33		
	1,250	1,468,900
County of Broward Florida Airport System, RB, Series A, AMT, 5.00%, 10/01/45		
	2,655	2,928,067
County of Hillsborough Florida Aviation Authority, Refunding ARB, Tampa International Airport,		
Series A, AMT:		
5.50%, 10/01/29	5,360	6,192,140
5.25%, 10/01/30	3,255	3,682,772
County of Lee Florida, Refunding ARB, Series A, AMT, 5.38%, 10/01/32		
	7,100	7,926,937
County of Lee Florida Housing Finance Authority, RB, S/F Housing, Multi-County Program, Series		
A-2, AMT (Ginnie Mae, Fannie Mae & Freddie Mac), 6.00%, 9/01/40	930	935,338
County of Manatee Florida Housing Finance Authority, RB, S/F Housing, Series A, AMT (Ginnie		
Mae, Fannie Mae & Freddie Mac), 5.90%, 9/01/40	350	356,233
County of Miami-Dade Florida, RB, Seaport:		
Series A, 5.38%, 10/01/33	3,145	3,574,796
Series B, AMT, 6.25%, 10/01/38	1,405	1,720,591
Series B, AMT, 6.00%, 10/01/42	1,885	2,223,829
	Par	
Municipal Bonds		
Florida (continued)		
County of Miami-Dade Florida, Refunding RB, Water & Sewer System, Series B, 5.25%, 10/01/29		
	\$ 2,870	\$ 3,363,755
County of Miami-Dade Florida Aviation, Refunding ARB, AMT, Series A:		
Miami International Airport (AGM), 5.50%, 10/01/41	3,500	3,848,495
5.00%, 10/01/31	5,465	6,053,690
County of Miami-Dade Florida Educational Facilities Authority, Refunding RB, University of		
Miami-Dade, Series A, 5.00%, 4/01/45	3,135	3,448,907
Reedy Creek Improvement District, GO, Series A, 5.25%, 6/01/32	3,225	3,761,092
		51,485,542
Hawaii 1.9%		
State of Hawaii, Department of Transportation, COP, AMT:		
5.25%, 8/01/25	1,350	1,588,356
5.25%, 8/01/26	2,500	2,928,175
State of Hawaii, Department of Transportation, RB, Series A, AMT, 5.00%, 7/01/45	5,985	6,618,093
		11,134,624
Illinois 25.4%		
City of Chicago Illinois, GARB, O Hare International Airport, 3rd Lien:		
Series A, 5.75%, 1/01/39	7,395	8,605,118
Series C, 6.50%, 1/01/41	16,800	20,221,824
City of Chicago Illinois Midway International Airport, Refunding ARB, 2nd Lien, Series A, AMT:		
5.50%, 1/01/30	6,500	7,374,835
5.50%, 1/01/32	6,275	7,060,567
5.00%, 1/01/41	8,020	8,615,004
City of Chicago Illinois Transit Authority, RB:		
Federal Transit Administration, Section 5309, Series A (AGC), 6.00%, 12/01/18 (a)	6,315	7,241,347
Sales Tax Receipts, 5.25%, 12/01/36	1,960	2,108,000

Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

	Par	
	(000)	Value
Municipal Bonds		
Illinois (continued)		
City of Chicago Illinois Transit Authority, RB (continued):		
Sales Tax Receipts, 5.25%, 12/01/40	\$ 10,960	\$ 11,733,009
Sales Tax Receipts, 5.00%, 12/01/44	6,450	6,923,494
City of Chicago Illinois Transit Authority, Refunding RB, Federal Transit Administration, Section 5309 (AGM), 5.00%, 6/01/28	7,735	8,226,637
County of Cook Illinois Community College District No. 508, GO, City College of Chicago:		
5.50%, 12/01/38	5,395	6,150,516
5.25%, 12/01/43	6,305	7,018,159
Illinois Finance Authority, RB, Carle Foundation, Series A, 6.00%, 8/15/41	4,000	4,691,480
Railsplitter Tobacco Settlement Authority, RB:		
5.50%, 6/01/23	4,365	5,092,384
6.00%, 6/01/28	1,245	1,478,935
State of Illinois, GO:		
5.25%, 2/01/31	2,700	2,896,101
5.25%, 2/01/32	5,525	5,906,556
5.50%, 7/01/33	7,820	8,453,185
5.50%, 7/01/38	1,295	1,375,691
5.00%, 2/01/39	5,000	5,165,550
State of Illinois Finance Authority, RB, University of Chicago, Series B, 5.50%, 7/01/18 (a)	10,000	11,151,400
		147,489,792
Indiana 3.6%		
Indiana Finance Authority, RB, Private Activity Bond, Ohio River Bridges, Series A, AMT, 5.00%, 7/01/40		
	1,240	1,323,328
Indiana Municipal Power Agency, Refunding RB, Series A:		
5.25%, 1/01/32	1,500	1,732,935
5.25%, 1/01/33	1,500	1,729,635
	Par	
Municipal Bonds		
Indiana (continued)		
Indianapolis Local Public Improvement Bond Bank, Refunding RB, Waterworks Project, Series A (AGC), 5.50%, 1/01/38		
	\$ 14,105	\$ 15,882,089
		20,667,987
Louisiana 0.9%		
City of New Orleans Louisiana Aviation Board, Refunding GARB, Restructuring (AGC):		
Series A-1, 6.00%, 1/01/23	500	564,205
Series A-2, 6.00%, 1/01/23	720	809,676
Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A, 5.50%, 5/15/29	3,735	4,109,583
		5,483,464
Massachusetts 0.4%		
Massachusetts Educational Financing Authority, RB, Education Loan, Issue I, AMT, 5.00%, 1/01/27		
	2,000	2,235,020
Michigan 3.6%		
City of Detroit Michigan Water Supply System, RB, 2nd Lien, Series B (AGM), 6.25%, 7/01/36		
	6,320	6,979,239
Hudsonville Public Schools, GO, School Building & Site (Q-SBLF), 5.25%, 5/01/41	6,015	6,893,010
Royal Oak Hospital Finance Authority Michigan, Refunding RB, William Beaumont Hospital, Series V, 8.25%, 9/01/18 (a)	5,780	6,911,955
		20,784,204
Minnesota 1.9%		
City of Minneapolis Minnesota, Refunding RB, Fairview Health Services, Series B (AGC):		
6.50%, 11/15/18 (a)	1,525	1,765,248
6.50%, 11/15/38	8,375	9,484,939

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		11,250,187
Mississippi 2.8%		
Mississippi Development Bank, RB, Jackson Water & Sewer System Project (AGM):		
6.88%, 12/01/40	6,405	8,205,125
Special Obligation, 6.75%, 12/01/31	3,775	4,890,814

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Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

	Par	
	(000)	Value
Municipal Bonds		
Mississippi (continued)		
Mississippi Development Bank, RB, Jackson Water & Sewer System Project (AGM) (continued):		
Special Obligation, 6.75%, 12/01/33	\$ 2,350	\$ 3,031,853
		16,127,792
Nevada 5.4%		
County of Clark Nevada, ARB, Las Vegas-McCarran International Airport, Series A (AGM), 5.25%, 7/01/39	11,175	12,504,378
County of Clark Nevada, GO, Limited Tax, 5.00%, 6/01/38	11,245	12,163,716
County of Clark Nevada Water Reclamation District, GO, Series A, 5.25%, 7/01/34	5,850	6,581,484
		31,249,578
New Jersey 7.9%		
New Jersey EDA, RB:		
School Facilities Construction (AGC), 6.00%, 12/15/18 (a)	4,280	4,914,210
School Facilities Construction (AGC), 6.00%, 12/15/34	70	79,165
The Goethals Bridge Replacement Project, AMT, 5.38%, 1/01/43	7,000	7,484,470
The Goethals Bridge Replacement Project, Private Activity Bond, AMT (AGM), 5.00%, 1/01/31	2,425	2,677,394
New Jersey Health Care Facilities Financing Authority, RB, Virtua Health, Series A (AGC), 5.50%, 7/01/38	6,500	7,285,785
New Jersey Higher Education Student Assistance Authority, Refunding RB, Series 1, AMT, 5.75%, 12/01/28	4,475	4,961,343
New Jersey Transportation Trust Fund Authority, RB, Transportation System:		
Series A, 5.50%, 6/15/41	5,410	5,762,624
Series AA, 5.50%, 6/15/39	8,175	8,784,691
	Par	
Municipal Bonds		
New Jersey (continued)		
New Jersey Turnpike Authority, RB, Series E, 5.00%, 1/01/45	\$ 3,675	\$ 4,100,786
		46,050,468
New York 7.4%		
City of New York New York Municipal Water Finance Authority, Refunding RB:		
2nd General Resolution, Fiscal 2009, Series EE, 5.25%, 6/15/40	7,500	8,428,425
Water & Sewer System, 2nd General Resolution, Series EE, 5.38%, 6/15/43	3,475	4,041,703
Water & Sewer System, Series FF-2, 5.50%, 6/15/40	4,000	4,538,280
City of New York New York Transitional Finance Authority, BARB, Fiscal 2009, Series S-4 (AGC), 5.50%, 1/15/29	4,000	4,511,080
Metropolitan Transportation Authority, RB:		
Series A, 5.25%, 11/15/38	4,000	4,699,760
Series A-1, 5.25%, 11/15/39	4,490	5,238,483
Port Authority of New York & New Jersey, Refunding ARB, Consolidated, 166th Series, 5.25%, 7/15/36	10,000	11,475,000
		42,932,731
Ohio 1.5%		
State of Ohio Turnpike Commission, RB, Junior Lien, Infrastructure Projects, Series A-1:		
5.25%, 2/15/31	5,145	5,955,132
5.25%, 2/15/32	2,250	2,597,940
		8,553,072
Pennsylvania 2.8%		
Pennsylvania Economic Development Financing Authority, RB, AMT, Pennsylvania Bridge Finco LP, 5.00%, 6/30/42		
	7,000	7,483,560
Pennsylvania Turnpike Commission, RB, Sub-Series A, 6.00%, 12/01/16 (a)	4,945	5,220,882

Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

	Par	
	(000)	Value
Municipal Bonds		
Pennsylvania (continued)		
Township of Bristol Pennsylvania School District, GO, 5.25%, 6/01/37	\$ 3,000	\$ 3,422,370
		16,126,812
South Carolina 6.7%		
County of Charleston South Carolina, RB, Special Source, 5.25%, 12/01/38	6,735	7,785,323
County of Charleston South Carolina Airport District, ARB, Series A, AMT: 5.25%, 7/01/25	4,490	5,258,868
5.50%, 7/01/38	3,000	3,385,980
6.00%, 7/01/38	5,270	6,125,690
5.50%, 7/01/41	4,170	4,712,434
South Carolina Ports Authority, RB, AMT, 5.25%, 7/01/50	3,445	3,831,391
State of South Carolina Public Service Authority, Refunding RB, Obligations, Series C, 5.00%, 12/01/46	7,000	7,709,240
		38,808,926
Texas 16.5%		
City of Beaumont Texas, GO, Certificates of Obligation, 5.25%, 3/01/37	4,190	4,782,592
City of Houston Texas Utility System, Refunding RB, Combined 1st Lien, Series A (AGC): 6.00%, 11/15/35	12,700	14,784,705
6.00%, 11/15/36	9,435	10,983,755
5.38%, 11/15/38	5,000	5,642,400
County of Tarrant Texas Cultural Education Facilities Finance Corp., Refunding RB, Christus Health, Series A (AGC): 6.50%, 1/01/19 (a)	320	371,334
6.50%, 7/01/37	1,450	1,635,020
Dallas Area Rapid Transit, Refunding RB, Senior Lien, 5.25%, 12/01/38	9,110	10,092,604
Dallas-Fort Worth International Airport, ARB, Joint Improvement, AMT: Series A, 5.00%, 11/01/38	5,580	5,996,882
Series H, 5.00%, 11/01/37	4,575	4,977,142
Lower Colorado River Authority, Refunding RB, 5.50%, 5/15/33	3,735	4,373,872
	Par	
	(000)	Value
Municipal Bonds		
Texas (continued)		
North Texas Tollway Authority, Refunding RB: 1st Tier (AGM), 6.00%, 1/01/43	\$ 5,555	\$ 6,562,455
1st Tier, Series K-1 (AGC), 5.75%, 1/01/38	12,150	13,568,634
Series B, 5.00%, 1/01/40	3,280	3,623,121
Red River Education Financing Corp., RB, Texas Christian University Project, 5.25%, 3/15/38	7,170	8,193,948
		95,588,464
Virginia 1.2%		
City of Lexington Virginia IDA, RB, Washington & Lee University, 5.00%, 1/01/43	1,750	1,933,085
Virginia Public School Authority, RB, Fluvanna County School Financing, 6.50%, 12/01/18 (a)	4,300	5,006,705
		6,939,790
Washington 1.5%		
City of Seattle Washington Municipal Light & Power, Refunding RB, Series A, 5.25%, 2/01/36	4,200	4,875,486
State of Washington, GO, Various Purposes, Series B, 5.25%, 2/01/36	3,290	3,819,131
		8,694,617
Total Municipal Bonds 132.0%		765,444,688

Municipal Bonds Transferred to

Tender Option Bond Trusts (b)

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California 0.5%		
Los Angeles Unified School District California, GO, Series I, 5.00%, 1/01/34	2,400	2,696,232
District of Columbia 0.6%		
District of Columbia Water & Sewer Authority, Refunding RB, Senior Lien, Series A, 6.00%, 10/01/18 (a)(c)	3,378	3,847,947
Florida 2.0%		
County of Hillsborough Florida Aviation Authority, ARB, Tampa International Airport, Series A, AMT (AGC), 5.50%, 10/01/38	10,657	11,662,584

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Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

Municipal Bonds Transferred to	Par	
	(000)	Value
Tender Option Bond Trusts (b)		
Indiana 1.8%		
Indiana Health & Educational Facilities Financing Authority, Refunding RB, St. Francis, Series E (AGM), 5.25%, 5/15/41	\$ 9,850	\$ 10,417,655
Kentucky 0.1%		
Kentucky State Property & Building Commission, Refunding RB, Project No. 93 (AGC), 5.25%, 2/01/27	404	450,188
Nevada 2.5%		
County of Clark Nevada Water Reclamation District, GO: Limited Tax, 6.00%, 7/01/18 (a)	8,000	9,025,200
Series B, 5.50%, 7/01/29	5,008	5,689,779
		14,714,979
New Jersey 3.3%		
New Jersey Housing & Mortgage Finance Agency, RB, S/F Housing, Series CC, 5.25%, 10/01/29	7,402	7,825,285
New Jersey Transportation Trust Fund Authority, RB, Transportation System: Series A (AMBAC), 5.00%, 12/15/32	8,000	8,414,880
Series B, 5.25%, 6/15/36 (c)	2,961	3,092,078
		19,332,243
New York 10.9%		
City of New York New York Municipal Water Finance Authority, Refunding RB, Water & Sewer System, 2nd General Resolution, Series FF-2, 5.50%, 6/15/40	4,994	5,666,393
City of New York New York Transitional Finance Authority, BARB, Fiscal 2009, Series S-3, 5.25%, 1/15/39	5,619	6,224,036
Hudson Yards Infrastructure Corp., RB, Fiscal 2012, Series A, 5.75%, 2/15/47 (c)	9,249	10,554,407
New York Liberty Development Corp., RB, 1 World Trade Center Port Authority Consolidated Bonds, 5.25%, 12/15/43	13,950	16,029,276
Municipal Bonds Transferred to		
	Par	
Tender Option Bond Trusts (b)		
	(000)	Value
New York (continued)		
New York Liberty Development Corp., Refunding RB, 4 World Trade Center Project, 5.75%, 11/15/51 (c)	\$ 8,200	\$ 9,461,074
New York State Dormitory Authority, ERB, Personal Income Tax, Series B, 5.25%, 3/15/38	13,500	15,110,415
		63,045,601
Texas 4.3%		
City of San Antonio Texas Public Service Board, Refunding RB, Series A, 5.25%, 2/01/31 (c)	12,027	13,380,319
North Texas Tollway Authority, RB, Special Projects System, Series A, 5.50%, 9/01/41	9,640	11,361,222
		24,741,541
Utah 1.2%		
City of Riverton Utah, RB, IHC Health Services, Inc., 5.00%, 8/15/41	6,373	6,926,941
Total Municipal Bonds Transferred to		
		157,835,911
Tender Option Bond Trusts 27.2%		
Total Long-Term Investments		
(Cost \$836,122,345) 159.2%		923,280,599
Short-Term Securities 0.9%		
	Shares	
FFI Institutional Tax-Exempt Fund, 0.02% (d)(e)	4,961,477	4,961,477
Total Short-Term Securities		
		4,961,477

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(Cost \$4,961,477) 0.9%	
Total Investments (Cost \$841,083,822*) 160.1%	928,242,076
Other Assets Less Liabilities 1.3%	7,077,778
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable (14.0)%	(80,940,569)
VRDP Shares, at Liquidation Value (47.4)%	(274,600,000)
Net Assets Applicable to Common Shares 100.0%	\$ 579,779,285

* As of November 30, 2015, gross unrealized appreciation and depreciation based on cost for federal income tax purposes were as follows:

Tax cost	\$ 761,222,346
Gross unrealized appreciation	\$ 87,297,700
Gross unrealized depreciation	(1,195,825)
Net unrealized appreciation	\$ 86,101,875

Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

Notes to Schedule of Investments

- (a) U.S. Government securities, held in escrow, are used to pay interest on this security, as well as to retire the bond in full at the date indicated, typically at a premium to par.
- (b) Represent bonds transferred to a TOB Trust in exchange of cash and residual certificates received by the Trust. These bonds serve as collateral in a secured borrowing.
- (c) All or a portion of security is subject to a recourse agreement, which may require the Trust 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 or in the event of a default on the security. In the case of a shortfall or default, the aggregate maximum potential amount the Trust could ultimately be required to pay under the agreements, which expire from October 1, 2016 to November 15, 2019. Is \$22,519,117.
- (d) During the period ended November 30, 2015, investments in issuers considered to be an affiliate of the Trust for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

Affiliate	Shares Held		Net Activity	Shares Held		Income
	at August 31, 2015			at November 30, 2015		
FFI Institutional Tax-Exempt Fund	3,674,880		1,286,597	4,961,477		\$ 176

- (e) Represents the current yield as of period end.

Derivative Financial Instruments Outstanding as of Period End

Financial Futures Contracts

Contracts (Short)	Issue	Expiration	Notional		Unrealized Depreciation
			Value		
(52)	10-Year U.S. Treasury Note	March 2016	\$ 6,574,750		\$ (15,579)
(50)	5-Year U.S. Treasury Note	March 2016	5,933,984		(10,619)
(20)	Long U.S. Treasury Bond	March 2016	3,080,000		(10,649)
(4)	Ultra U.S. Treasury Bond	March 2016	633,750		(3,381)
Total					\$ (40,228)

Portfolio Abbreviations

AGC	Assured Guarantee Corp.
AGM	Assured Guaranty Municipal Corp.

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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
GARB	General Airport Revenue Bonds
GO	General Obligation Bonds
IDA	Industrial Development Authority
IDB	Industrial Development Board
LRB	Lease Revenue Bonds
NPFGC	National Public Finance Guarantee Corp.
RB	Revenue Bonds
S/F	Single-Family

BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND

NOVEMBER 30, 2015

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Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

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 Trust 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 Trust's own assumptions used in determining the fair value of investments and derivative financial instruments)

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

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

As of period end, the following tables summarize the Trust's investments and derivative financial instruments categorized in the disclosure hierarchy:

	Level 1	Level 2	Level 3	Total
Assets:				
Investments:				
Long-Term Investments ¹		\$ 923,280,599		\$ 923,280,599
Short-Term Securities	\$ 4,961,477			4,961,477
Total	\$ 4,961,477	\$ 923,280,599		\$ 928,242,076

¹ See above Schedule of Investments for values in each sector.

	Level 1	Level 2	Level 3	Total
Derivative Financial Instruments ¹				
Liabilities:				
Interest rate contracts	\$ (40,228)			\$ (40,228)

¹ Derivative financial instruments are financial futures contracts, which are valued at the unrealized appreciation (depreciation) on the instrument.

Schedule of Investments (concluded)

BlackRock MuniHoldings Investment Quality Fund (MFL)

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

	Level 1	Level 2	Level 3	Total
Assets:				
Cash pledged for financial future contracts	\$ 200,150			\$ 200,150
Liabilities:				
TOB Trust Certificates		\$ (80,917,855)		(80,917,855)
VRDP Shares		(274,600,000)		(274,600,000)
Total	\$ 200,150	\$ (355,517,855)		\$ (355,317,705)

During the period ended November 30, 2015, there were no transfers between levels.

BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND

NOVEMBER 30, 2015

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Item 2 Controls and Procedures

- 2(a) The registrant's principal executive and principal financial officers, or persons performing similar functions, have concluded that the registrant's disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940, as amended (the "1940 Act")) are effective as of a date within 90 days of the filing of this report based on the evaluation of these controls and procedures required by Rule 30a-3(b) under the 1940 Act and Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended.
- 2(b) There were no changes in the registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under the 1940 Act) that occurred during the registrant's last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the registrant's internal control over financial reporting.

Item 3 Exhibits

Certifications Attached hereto

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BlackRock MuniHoldings Investment Quality Fund

By: /s/ John M. Perlowski
John M. Perlowski
Chief Executive Officer (principal executive officer) of
BlackRock MuniHoldings Investment Quality Fund

Date: January 22, 2016

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

By: /s/ John M. Perlowski
John M. Perlowski
Chief Executive Officer (principal executive officer) of
BlackRock MuniHoldings Investment Quality Fund

Date: January 22, 2016

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

Date: January 22, 2016