

BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND

Form N-Q

January 27, 2014

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: 08/31/2014

Date of reporting period: 11/30/2013

Item 1 Schedule of Investments

Schedule of Investments November 30, 2013 (Unaudited)

BlackRock MuniHoldings Investment Quality Fund (MFL)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
Alabama 4.4%		
City of Birmingham Alabama Special Care Facilities Financing Authority, RB, Children s Hospital (AGC):		
6.13%, 6/01/34	\$ 4,980	\$ 5,589,552
6.00%, 6/01/39	10,995	12,296,038
City of Madison Alabama, GO, Refunding, 5.00%, 4/01/37	3,370	3,463,450
City of Selma Alabama IDB, RB, Gulf Opportunity Zone, International Paper Co. Project, Series A, 5.38%, 12/01/35	1,745	1,697,187
		23,046,227
California 24.1%		
California Educational Facilities Authority, RB, University of Southern California, Series A, 5.25%, 10/01/38	8,920	9,511,664
California Health Facilities Financing Authority, RB, Sutter Health, Series B, 6.00%, 8/15/42	5,370	6,138,393
California State Public Works Board, LRB:		
Department of Corrections and Rehabilitation, Series F, 5.25%, 9/01/33	2,240	2,338,918
Various Capital Projects, Series I, 5.50%, 11/01/31	2,615	2,835,392
Various Capital Projects, Series I, 5.50%, 11/01/33	2,000	2,161,900
City & County of San Francisco Airports Commission, Refunding ARB, 2nd Series A, AMT:		
5.50%, 5/01/28	3,330	3,609,920
5.25%, 5/01/33	2,600	2,687,750
City of Manteca California Financing Authority, RB, Manteca Sewer (AGC):		
5.63%, 12/01/33	2,450	2,608,221
5.75%, 12/01/36	3,285	3,495,437
City of San Jose California, Refunding ARB, Series A-1, AMT, 5.75%, 3/01/34	4,450	4,697,687
County of Los Angeles California Public Works Financing Authority, LRB, Multiple Capital Projects II, 5.00%, 8/01/42	6,475	6,492,612
	Par (000)	Value
Municipal Bonds		
California (concluded)		
County of Sacramento California, ARB, Senior Series A (AGC), 5.50%, 7/01/41	\$ 5,600	\$ 6,141,128
Kern Community College District, GO, Safety, Repair & Improvement, Election of 2002, Series C, 5.50%, 11/01/33	4,365	4,874,003
Los Angeles California Unified School District, GO, Election of 2002, Series D, 5.25%, 7/01/25	3,485	4,021,864
Los Angeles Community College District California, GO:		
Election of 2001, Series A (NPFGC), 5.00%, 8/01/32	10,000	10,497,000
Election of 2008, Series C, 5.25%, 8/01/39	3,375	3,607,909
Los Angeles Department of Water & Power, RB, Power System, Sub-Series A-1, 5.25%, 7/01/38	5,000	5,285,200
Los Angeles Municipal Improvement Corp., Refunding LRB, Real Property, Series B (AGC), 5.50%, 4/01/39	2,980	3,251,389
Redondo Beach Unified School District, GO, Election of 2008, Series E, 5.50%, 8/01/34	4,110	4,360,217
Sacramento California Municipal Utility District, RB, Series A, 5.00%, 8/15/37	3,275	3,399,843
San Diego Public Facilities Financing Authority Water, Refunding RB, Series B (AGC), 5.38%, 8/01/34	4,690	5,105,440
State of California, GO, Various Purposes (AGC), 5.50%, 11/01/39	15,000	16,208,400
University of California, Refunding RB, The Regents of Medical Center, Series J, 5.25%, 5/15/38	10,050	10,468,080
Washington Township Health Care District, GO, Election of 2004, Series B, 5.50%, 8/01/40	1,685	1,786,824
		125,585,191
Colorado 2.3%		
City & County of Denver Colorado Airport System, ARB, Series A, AMT:		
5.50%, 11/15/28	2,700	2,876,823
5.50%, 11/15/30	1,040	1,091,210
5.50%, 11/15/31	1,250	1,302,525

Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
Colorado (concluded)		
Colorado Health Facilities Authority, RB, Hospital, NCMC, Inc. Project, Series B (AGM), 6.00%, 5/15/26	\$ 5,925	\$ 6,579,831
		11,850,389
District of Columbia 0.2%		
District of Columbia Water & Sewer Authority, Refunding RB, Public Utilities, Series A (NPFGC), 5.00%, 10/01/38	1,000	1,040,640
Florida 12.3%		
City of Jacksonville Florida, Refunding RB, Series A, 5.25%, 10/01/33	1,250	1,326,850
County of Hillsborough Florida Aviation Authority, Refunding ARB, Tampa International Airport, Series A, AMT: 5.50%, 10/01/29	5,360	5,612,563
5.25%, 10/01/30	3,255	3,302,230
County of Lee Florida, Refunding ARB, Series A, AMT, 5.38%, 10/01/32	4,600	4,689,746
County of Manatee Florida Housing Finance Authority, RB, Series A, AMT (Ginnie Mae, Fannie Mae & Freddie Mac), 5.90%, 9/01/40	500	510,565
County of Miami-Dade Florida, RB, Seaport: Series A, 5.38%, 10/01/33	3,145	3,271,523
Series B, AMT, 6.25%, 10/01/38	1,405	1,492,897
Series B, AMT, 6.00%, 10/01/42	1,885	1,957,177
County of Miami-Dade Florida, Refunding RB: Transit System Sales Surtax, 5.00%, 7/01/42	6,065	6,170,652
Water & Sewer System, Series B, 5.25%, 10/01/29	8,745	9,522,431
County of Miami-Dade Florida Aviation, Refunding ARB, Series A, AMT: Miami International Airport (AGM), 5.50%, 10/01/41	3,500	3,685,185
5.00%, 10/01/31	10,465	10,471,698
County of Miami-Dade Florida Housing Finance Authority, MRB, Marbrisa Apartments Project, Series 2A, AMT (AGM), 6.00%, 8/01/26	2,185	2,187,644
	Par (000)	Value
Municipal Bonds		
Florida (concluded)		
Florida Housing Finance Corp., RB, M/F Housing, Waverly Apartments, Series C-1, AMT (AGM), 6.30%, 7/01/30	\$ 2,055	\$ 2,057,404
Florida Housing Finance Corp., Refunding RB, Homeowner Mortgage, Series 2, AMT (NPFGC): 5.75%, 7/01/14	120	120,433
5.90%, 7/01/29	4,445	4,478,249
Reedy Creek Improvement District, GO, Series A, 5.25%, 6/01/32	3,225	3,438,656
		64,295,903
Illinois 17.3%		
City of Chicago Illinois, GARB, O Hare International Airport, 3rd Lien: Series A, 5.75%, 1/01/39	7,395	7,677,563
Series C, 6.50%, 1/01/41	16,800	18,819,192
City of Chicago Illinois, Refunding RB, Sales Tax, Series A, 5.25%, 1/01/38	2,445	2,486,761
City of Chicago Illinois Transit Authority, RB: Federal Transit Administration, Section 5309, Series A (AGC), 6.00%, 6/01/26	6,315	6,830,051
Sales Tax Receipts, 5.25%, 12/01/36	1,960	1,999,768
Sales Tax Receipts, 5.25%, 12/01/40	9,040	9,134,106
City of Chicago Illinois Transit Authority, Refunding RB, Federal Transit Administration, Section 5309 (AGM), 5.00%, 6/01/28	7,735	7,900,297
County of Cook Illinois Community College District No. 508, GO, City College of Chicago: 5.50%, 12/01/38	2,145	2,238,930
5.25%, 12/01/43	2,500	2,509,650
Illinois Finance Authority, RB: Carle Foundation, Series A, 6.00%, 8/15/41	4,000	4,295,320
University of Chicago, Series B, 5.50%, 7/01/37	10,000	10,789,200
Railsplitter Tobacco Settlement Authority, RB:		

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5.50%, 6/01/23	4,365	4,788,929
6.00%, 6/01/28	1,245	1,355,394
State of Illinois, GO, Various Purposes:		
5.50%, 7/01/33	7,820	7,947,779

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BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND

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Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
Illinois (concluded)		
State of Illinois, GO, Various Purposes (concluded):		
5.50%, 7/01/38	\$ 1,295	\$ 1,293,200
		90,066,140
Indiana 4.4%		
Indiana Finance Authority, RB, Series A:		
Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/40	1,240	1,121,828
Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/44	495	438,575
Wastewater, 1st Lien, 5.25%, 10/01/31	3,075	3,305,594
Indiana Municipal Power Agency, Refunding RB, Series A:		
5.25%, 1/01/32	1,500	1,584,375
5.25%, 1/01/33	1,500	1,576,035
Indianapolis Local Public Improvement Bond Bank, Refunding RB, Waterworks Project, Series A (AGC), 5.50%, 1/01/38	14,105	14,804,890
		22,831,297
Louisiana 1.7%		
City of New Orleans Louisiana Aviation Board, Refunding GARB, Restructuring (AGC):		
Series A-1, 6.00%, 1/01/23	500	565,000
Series A-2, 6.00%, 1/01/23	720	813,600
Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A:		
5.50%, 5/15/28	3,500	3,636,395
5.50%, 5/15/29	3,735	3,845,668
		8,860,663
Massachusetts 1.9%		
Massachusetts School Building Authority, RB, Senior Series B, 5.00%, 10/15/41	9,435	9,833,534
Michigan 6.1%		
City of Detroit Michigan, RB, Water Supply System, 2nd Lien, Series B (AGM), 6.25%, 7/01/36		
	6,320	6,422,384
Municipal Bonds		
Michigan (concluded)		
City of Detroit Michigan, Refunding RB, Sewage Disposal System Senior Lien (AGM):		
Series B, 7.50%, 7/01/33	\$ 2,780	\$ 2,959,477
Series C-1, 7.00%, 7/01/27	9,055	9,530,206
Hudsonville Public Schools, GO, School Building & Site (Q-SBLF), 5.25%, 5/01/41	6,015	6,148,172
Royal Oak Hospital Finance Authority, Refunding RB, William Beaumont Hospital Obligated Group, Series V, 8.25%, 9/01/39	5,780	6,921,319
		31,981,558
Minnesota 2.2%		
City of Minneapolis Minnesota, Refunding RB, Fairview Health Services, Series B (AGC), 6.50%, 11/15/38		
	9,900	11,302,830
Mississippi 3.7%		
Medical Center Educational Building Corp., RB, University of Mississippi Medical Center Facilities Expansion & Renovation Project, Series A, 5.00%, 6/01/41		
	1,830	1,873,280
Mississippi Development Bank, RB, Special Obligation, Jackson Water & Sewer System Project, (AGM):		
6.75%, 12/01/31	3,775	4,544,534
6.75%, 12/01/33	2,350	2,804,654
6.88%, 12/01/40	6,405	7,601,198
Mississippi State University Educational Building Corp., Refunding RB, Mississippi State University Improvement Project, 5.25%, 8/01/38	2,300	2,456,262
		19,279,928
Nevada 3.4%		

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County of Clark Nevada, ARB, Las Vegas-McCarran International Airport, Series A (AGM),
5.25%, 7/01/39

11,175

11,496,728

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Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
Nevada (concluded)		
County of Clark Nevada Water Reclamation District, GO, Series A, 5.25%, 7/01/34	\$ 5,850	\$ 6,482,853
		17,979,581
New Jersey 11.3%		
New Jersey EDA, RB:		
The Goethals Bridge Replacement Project, AMT, 5.38%, 1/01/43	6,000	5,874,420
The Goethals Bridge Replacement Project, AMT, 5.00%, 1/01/31	2,425	2,419,374
School Facilities Construction (AGC), 6.00%, 12/15/18 (a)	1,430	1,764,277
School Facilities Construction (AGC), 6.00%, 12/15/34	2,920	3,275,218
New Jersey Health Care Facilities Financing Authority, RB, Virtua Health, Series A (AGC), 5.50%, 7/01/38	6,500	6,697,925
New Jersey Higher Education Student Assistance Authority, Refunding RB, Series 1, AMT, 5.75%, 12/01/28	4,475	4,712,264
New Jersey Transportation Trust Fund Authority, RB:		
Transportation Program, Series AA, 5.50%, 6/15/39	8,175	8,686,101
Transportation System, Series A, 5.50%, 6/15/41	17,710	18,497,918
Rutgers - The State University of New Jersey, Refunding RB:		
Series J, 5.00%, 5/01/32	3,900	4,203,537
Series L, 5.00%, 5/01/32	2,410	2,597,570
		58,728,604
New York 8.5%		
City of New York New York Municipal Water Finance Authority, RB, Water & Sewer System, 2nd General Resolution:		
Fiscal 2009, Series EE, 5.25%, 6/15/40	7,500	7,870,650
Series FF-2, 5.50%, 6/15/40	4,000	4,262,880
City of New York New York Municipal Water Finance Authority, Refunding RB, Water & Sewer System, 2nd General Resolution, Fiscal 2011, Series EE, 5.38%, 6/15/43	3,475	3,669,635
	Par (000)	Value
Municipal Bonds		
New York (concluded)		
City of New York New York Transitional Finance Authority, BARB, Fiscal 2011, Sub-Series S-2A, 5.00%, 7/15/30	\$ 7,110	\$ 7,606,918
City of New York New York Transitional Finance Authority Building Aid, BARB, Fiscal 2009, Series S-4 (AGC), 5.50%, 1/15/29	4,000	4,518,280
Metropolitan Transportation Authority, Refunding RB, Series C, 5.00%, 11/15/28	5,500	5,851,010
Port Authority of New York & New Jersey, Refunding ARB, Consolidated, 166th Series, 5.25%, 7/15/36	10,000	10,800,300
		44,579,673
Ohio 2.2%		
Ohio Higher Educational Facility Commission, Refunding RB, Kenyon College Project, 5.00%, 7/01/37		
	875	887,617
Ohio State Turnpike Commission, RB, Junior Lien, Infrastructure Projects, Series A-1:		
5.25%, 2/15/30	2,645	2,853,056
5.25%, 2/15/31	5,145	5,521,254
5.25%, 2/15/32	2,250	2,402,190
		11,664,117
Pennsylvania 2.6%		
Pennsylvania Higher Educational Facilities Authority, RB, Temple University, 1st Series, 5.00%, 4/01/42		
	8,325	8,483,591
Pennsylvania Turnpike Commission, RB, Sub-Series A, 6.00%, 12/01/41		
	4,945	5,343,271
		13,826,862
South Carolina 3.8%		
County of Charleston South Carolina, RB, Special Source, Series 2013, 5.25%, 12/01/38 (b)	6,735	7,228,137

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County of Charleston South Carolina Airport District, ARB, Series A, AMT:

5.25%, 7/01/25	4,030	4,364,409
6.00%, 7/01/38	5,270	5,609,441

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Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
South Carolina (concluded)		
County of Charleston South Carolina Airport District, ARB, Series A, AMT (concluded): 5.50%, 7/01/41	\$ 2,500	\$ 2,565,425
		19,767,412
Texas 19.2%		
City of Beaumont Texas, GO, Certificates of Obligation, 5.25%, 3/01/37	4,190	4,510,912
City of Houston Texas Utility System, Refunding RB, Combined 1st Lien, Series A (AGC): 6.00%, 11/15/35	12,700	14,381,353
6.00%, 11/15/36	9,435	10,714,292
5.38%, 11/15/38	5,000	5,314,050
County of Tarrant Texas Cultural Education Facilities Finance Corp., Refunding RB, Christus Health, Series A (AGC), 6.50%, 7/01/37	1,770	1,932,681
Dallas Area Rapid Transit, Refunding RB, Senior Lien, 5.25%, 12/01/38	9,110	9,648,310
Dallas-Fort Worth International Airport, ARB, Joint Improvement AMT: Series A, 5.00%, 11/01/38	4,080	3,879,142
Series H, 5.00%, 11/01/37	4,575	4,360,158
Lower Colorado River Authority, Refunding RB, 5.50%, 5/15/33	3,735	4,005,265
North Texas Tollway Authority, RB, Special Projects, Series A, 5.50%, 9/01/41	3,500	3,755,150
North Texas Tollway Authority, Refunding RB, 1st Tier: (AGM), 6.00%, 1/01/43	5,555	5,985,846
Series K-1 (AGC), 5.75%, 1/01/38	12,150	13,237,546
Red River Education Financing Corp., RB, Texas Christian University Project, 5.25%, 3/15/38	7,170	7,715,350
Waco Educational Finance Corp., Refunding RB, Baylor University, 5.00%, 3/01/43	10,750	10,908,992
		100,349,047
Virginia 1.4%		
City of Lexington Virginia IDA, RB, Washington & Lee University, 5.00%, 1/01/43	1,750	1,829,223
Municipal Bonds		
Virginia (concluded)		
Virginia Public School Authority, RB, School Financing, 6.50%, 12/01/18 (a)	\$ 4,300	\$ 5,408,884
		7,238,107
Washington 1.5%		
City of Seattle Washington Municipal Light & Power, Refunding RB, Series A, 5.25%, 2/01/36	4,200	4,497,276
State of Washington, GO, Various Purposes, Series B, 5.25%, 2/01/36	3,290	3,527,077
		8,024,353
Total Municipal Bonds 134.5%		702,132,056
Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts (c)		
Alabama 1.3%		
City of Mobile Alabama Board of Water and Sewer Commissioners, RB (NPFGC), 5.00%, 1/01/31	6,500	6,773,780
California 2.7%		
California State University, Refunding RB, Systemwide, Series A (AGM), 5.00%, 11/01/32	7,960	8,277,206
Los Angeles Unified School District California, GO, Series I, 5.00%, 1/01/34	2,400	2,528,136
University of California, Refunding RB, Limited Project, Series G, 5.00%, 5/15/37	3,020	3,149,282
		13,954,624
District of Columbia 0.7%		
District of Columbia Water & Sewer Authority, Refunding RB, Senior Lien, Series A, 6.00%, 10/01/35 (d)	3,379	3,766,854
Florida 2.6%		

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County of Hillsborough Florida Aviation Authority, ARB, Tempa International Airport, Series
A, AMT (AGC), 5.50%, 10/01/38

10,657

11,299,504

BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND

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Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts (c)		
Florida (concluded)		
County of Lee Florida Housing Finance Authority, RB, Multi-County Program, Series A-2, AMT (Ginnie Mae), 6.00%, 9/01/40	\$ 1,965	\$ 2,053,798
		13,353,302
Indiana 1.9%		
Indiana Health & Educational Facilities Financing Authority, Refunding RB, St. Francis, Series E (AGM), 5.25%, 5/15/41	9,850	9,922,890
Kentucky 0.1%		
Kentucky State Property & Building Commission, Refunding RB, Project No. 93 (AGC), 5.25%, 2/01/27	404	444,927
Nevada 2.8%		
County of Clark Nevada Water Reclamation District, GO: Limited Tax, 6.00%, 7/01/38	8,000	9,038,000
Series B, 5.50%, 7/01/29	5,008	5,713,376
		14,751,376
New Jersey 3.7%		
New Jersey Housing & Mortgage Finance Agency, RB, S/F Housing, Series CC, 5.25%, 10/01/29	7,402	7,694,454
New Jersey Transportation Trust Fund Authority, RB, Transportation System: Series A (AGM, AMBAC), 5.00%, 12/15/32	8,000	8,348,400
Series B, 5.25%, 6/15/36 (d)	2,961	3,082,102
		19,124,956
New York 11.2%		
City of New York New York Municipal Water Finance Authority, RB, Water & Sewer System, 2nd General Resolution, Series FF-2, 5.50%, 6/15/40	4,994	5,322,487
City of New York New York Transitional Finance Authority, BARB, Series S-3, 5.25%, 1/15/39	5,619	6,019,567
Hudson Yards Infrastructure Corp., RB, Fiscal 2012, Series A, 5.75%, 2/15/47 (d)	9,249	9,868,381
Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts (c)		
New York (concluded)		
New York Liberty Development Corp., RB, 1 World Trade Center Port Authority Construction, 5.25%, 12/15/43	\$ 13,950	\$ 14,563,102
New York Liberty Development Corp., Refunding RB, 4 World Trade Center Project, 5.75%, 11/15/51 (d)	8,200	8,738,166
New York State Dormitory Authority, ERB, Personal Income Tax, Series B, 5.25%, 3/15/38	13,500	14,237,910
		58,749,613
Texas 4.5%		
City of San Antonio Texas Public Service Board, Refunding RB, Series A, 5.25%, 2/01/31 (d)	12,027	13,251,117
North Texas Tollway Authority, RB, Special Projects, System, Series A, 5.50%, 9/01/41	9,640	10,342,756
		23,593,873
Utah 1.2%		
City of Riverton Utah, RB, IHC Health Services, Inc., 5.00%, 8/15/41	6,371	6,436,640
Total Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts 32.7%		170,872,835
Total Long-Term Investments (Cost \$845,454,318) 167.2%		873,004,891
Short-Term Securities		
California 0.1%		
	700	700,000

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California Infrastructure & Economic Development Bank, Refunding RB, VRDN, Pacific Gas & Electric Co., Series D (Sumitomo Mitsui Banking Corp. LOC), 0.04%, 12/02/13 (e)

Connecticut 0.4%

Connecticut Housing Finance Authority, Refunding RB, VRDN, Housing Mortgage Finance Program, Sub-Series A-2 (JPMorgan Chase Bank SBPA), 0.06%, 12/02/13 (e)	2,000	2,000,000
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Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

(Percentages shown are based on Net Assets)

	Par	
	(000)	Value
Short-Term Securities		
Florida 0.6%		
County of Sarasota Florida Public Hospital District, Refunding RB, VRDN, Sarasota Memorial Hospital Project, Series A (Northern Trust Co. LOC), 0.05%, 12/02/13 (e)	\$ 2,900	\$ 2,900,000
New York 0.3%		
New York City Municipal Water & Sewer Finance Authority, Refunding RB, Water & Sewer System, 2nd General Resolution, Fiscal 2011, Series DD-1 (TD Bank NA SBPA), 0.05%, 12/02/13 (e)	1,500	1,500,000
Short-Term Securities		
	Shares	Value
Money Market Funds 0.8%		
FFI Institutional Tax-Exempt Fund, 0.03% (f)(g)	3,985,974	\$ 3,985,974
Total Short-Term Securities		11,085,974
(Cost \$11,085,974) 2.2%		
Total Investments		884,090,865
(Cost \$856,540,292*) 169.4%		
Other Assets Less Liabilities 0.6%		3,400,562
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable (17.4%)		(90,995,188)
VRDP Shares, at Liquidation Value (52.6%)		(274,600,000)
Net Assets Applicable to Common Shares 100.0%		\$ 521,896,239

* As of November 30, 2013, gross unrealized appreciation and depreciation based on cost for federal income tax purposes were as follows:

Tax cost	\$ 766,984,516
Gross unrealized appreciation	\$ 35,320,322
Gross unrealized depreciation	(9,181,149)
Net unrealized appreciation	\$ 26,139,173

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

Counterparty	Value	Unrealized Appreciation
Wells Fargo Securities, LLC	\$ 7,228,137	\$ 90,990

- (c) Represent bonds transferred to a TOB. In exchange the Fund acquired residual interest certificates. These bonds serve as collateral in a financing transaction.

(d)

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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, which expire from October 1, 2016 to November 15, 2019 is \$22,520,646.

- (e) Variable rate security. Rate shown is as of report date and maturity shown is the date the principal owed can be recovered through demand.
- (f) Investments in issuers considered to be an affiliate of the Fund during the period ended November 30, 2013, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

Affiliate	Shares Held at August 31, 2013	Net Activity	Shares Held at November 30, 2013	Income
FFI Institutional Tax-Exempt Fund	27,631,574	(23,645,600)	3,985,974	\$ 750

- (g) Represents the current yield as of report date.

BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND

NOVEMBER 30, 2013

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Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

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 Corp.
GARB	General Airport Revenue Bonds
Ginnie Mae	Government National Mortgage Association
GO	General Obligation Bonds
IDA	Industrial Development Authority
IDB	Industrial Development Board
LOC	Letter of Credit
LRB	Lease Revenue Bonds
M/F	Multi-Family
MRB	Mortgage Revenue Bonds
NPFGC	National Public Finance Guarantee Corp.
Q-SBLF	Qualified School Bond Loan Fund
RB	Revenue Bonds
SBPA	Stand-by Bond Purchase Agreements
S/F	Single-Family
VRDN	Variable Rate Demand Notes

Financial futures contracts as of November 30, 2013 were as follows:

Contracts Sold	Issue	Exchange	Expiration	Notional Value	Unrealized Appreciation
(323)	10-Year US Treasury Note	Chicago Board of Trade	December 2013	\$ 40,904,922	\$ 206,570

Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

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 November 30, 2013:

	Level 1	Level 2	Level 3	Total
Assets:				
Investments:				
Long-Term Investments ¹		\$ 873,004,891		\$ 873,004,891
Short-Term Securities	\$ 3,985,974	7,100,000		11,085,974
Total	\$ 3,985,974	\$ 880,104,891		\$ 884,090,865

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

	Level 1	Level 2	Level 3	Total
Derivative Financial Instruments ²				
Assets:				
Interest rate contracts	\$ 206,570			\$ 206,570

² 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)

Certain of the Fund's assets and/or liabilities are held at carrying amount, which approximates fair value for financial reporting purposes. As of November 30, 2013, 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 futures contracts	\$ 572,000			\$ 572,000
Liabilities:				
Bank overdraft		\$ (10,896)		(10,896)
TOB trust certificates		(90,967,176)		(90,967,176)
VRDP Shares		(274,600,000)		(274,600,000)
Total	\$ 572,000	\$ (365,578,072)		\$ (365,006,072)

There were no transfers between levels during the period ended November 30, 2013.

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 24, 2014

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 24, 2014

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

Date: January 24, 2014