

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

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
	Par (000)	Value
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

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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)