

BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND

Form N-Q

July 28, 2011

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: 08/31/2011

Date of reporting period: 05/31/2011

Item 1 Schedule of Investments

Schedule of Investments May 31, 2011 (Unaudited)

BlackRock MuniHoldings Investment Quality Fund (MFL)
(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Alabama 3.4%		
Birmingham Special Care Facilities Financing Authority, RB, Children s Hospital (AGC):		
6.13%, 6/01/34	\$ 4,980	\$ 5,383,181
6.00%, 6/01/39	10,995	11,694,832
		<u>17,078,013</u>
Arizona 2.6%		
State of Arizona, COP, Department of Administration, Series A (AGM):		
5.25%, 10/01/24	10,260	10,852,720
5.25%, 10/01/28	2,240	2,288,339
		<u>13,141,059</u>
California 19.7%		
California Educational Facilities Authority, RB, University of Southern California, Series A, 5.25%, 10/01/38		
	8,920	9,333,353
California Health Facilities Financing Authority, Refunding RB, Sutter Health, Series B, 6.00%, 8/15/42		
	5,370	5,612,670
California State Public Works Board, RB, Various Capital Projects, Series G-1 (AGC), 5.25%, 10/01/24		
	5,000	5,353,650
California State University, RB, Systemwide, Series A (AGM), 5.00%, 11/01/39		
	4,000	3,841,640
County of Sacramento California, RB, Senior Series A (AGC), 5.50%, 7/01/41		
	6,600	6,669,036
Los Angeles Community College District California, GO:		
Election of 2001, Series A (NPFGC), 5.00%, 8/01/32		
	10,000	10,078,500
Election of 2008, Series C, 5.25%, 8/01/39		
	7,150	7,364,500
Los Angeles Department of Water & Power, RB, Power System, Sub-Series, A-1, 5.25%, 7/01/38		
	5,000	5,163,850
Los Angeles Municipal Improvement Corp., Refunding RB, Real Property, Series B (AGC), 5.50%, 4/01/39		
	2,980	3,008,072
Los Angeles Unified School District California, GO, Series D, 5.25%,		
	3,485	3,729,786

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7/01/25

Municipal Bonds	Par (000)	Value
California (concluded)		
Manteca Financing Authority California, RB, Manteca Sewer (AGC):		
5.63%, 12/01/33	\$ 2,450	\$ 2,568,801
5.75%, 12/01/36	3,285	3,423,890
Oxnard Union High School District, GO, Refunding, Election of 2004, Series A (AGM), 5.00%, 8/01/40	6,750	6,374,092
San Bernardino Community College District, GO, Election 2002, Series A, 6.25%, 8/01/33	3,820	4,242,645
San Diego Public Facilities Financing Authority, Refunding RB, Series B (AGC), 5.38%, 8/01/34	4,690	4,899,080
San Jacinto Unified School District, GO, Election of 2006 (AGM), 5.25%, 8/01/32	3,000	3,013,890
State of California, GO, Various Purpose (AGC), 5.50%, 11/01/39	15,000	15,457,500
		100,134,955
Colorado 1.6%		
Colorado Health Facilities Authority, RB, Hospital, NCMC Inc. Project, Series B (AGM), 6.00%, 5/15/26	5,925	6,488,823
Regional Transportation District, COP, Series A, 5.00%, 6/01/25	1,425	1,470,857
		7,959,680
District Of Columbia 0.7%		
District of Columbia, Refunding RB, Georgetown University, Series D (BHAC), 5.50%, 4/01/36	775	820,919
District of Columbia Water & Sewer Authority, RB, Series A (NPFGC), 5.00%, 10/01/38	2,545	2,569,584
		3,390,503
Florida 18.9%		
City of Sunrise Florida, Refunding RB (AMBAC), 5.20%, 10/01/22	1,225	1,323,465
County of Lee Florida, RB, Series A, AMT (AGM), 6.00%, 10/01/29	19,925	20,004,301
County of Miami-Dade Florida, RB, AMT, Miami International Airport, Series A: (AGM), 5.50%, 10/01/41	10,900	10,360,341
(NPFGC), 6.00%, 10/01/29	8,000	8,086,240
(AGM), 5.13%, 10/01/35	8,605	7,904,381

Portfolio Abbreviations

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

AGC	Assured Guaranty Corp.
AGM	Assured Guaranty Municipal Corp.
AMBAC	American Municipal Bond Assurance Corp.
AMT	Alternative Minimum Tax (subject to)
BHAC	Berkshire Hathaway Assurance Corp.
CIFG	CDC IXIS Financial Guaranty
COP	Certificates of Participation
EDA	Economic Development Authority
ERB	Education Revenue Bonds
GARB	General Airport Revenue Bonds
GO	General Obligation Bonds
HRB	Housing Revenue Bonds
IDA	Industrial Development Authority
ISD	Independent School District
MRB	Mortgage Revenue Bonds
NPFGC	National Public Finance Guarantee Corp.
RB	Revenue Bonds
S/F	Single-Family

Schedule of Investments (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)
(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Florida (concluded)		
County of Osceola Florida, RB, Series A (NPFGC), 5.50%, 10/01/27	\$ 5,560	\$ 5,626,498
County of St. John s Florida, RB (AGM), 5.00%, 10/01/31	455	456,192
Florida Housing Finance Corp., HRB, Waverly Apartments, Series C-1, AMT (AGM), 6.30%, 7/01/30	2,055	2,075,817
Florida Housing Finance Corp., Refunding RB, AMT (NPFGC) Homeowner Mortgage Series 2: 5.75%, 7/01/14	6,700	6,777,184
5.90%, 7/01/29	525	526,066
Jacksonville Port Authority, RB, AMT (AGC), 6.00%, 11/01/38	6,740	6,805,041
Manatee County Housing Finance Authority, RB, Series A, AMT (Ginnie Mae), 5.90%, 9/01/40	2,890	3,123,599
Miami-Dade County Housing Finance Authority Florida, MRB, Marbrisa Apartments Project, Series 2A, AMT (AGM), 6.00%, 8/01/26	2,185	2,206,566
St. Lucie West Services District, Refunding RB, Senior Lien (NPFGC), 6.00%, 10/01/22	3,250	3,325,887
St. Lucie West Services District, RB (NPFGC): 5.25%, 10/01/34	1,720	1,612,242
5.00%, 10/01/38	4,125	3,669,765
Village Center Community Development District, RB, Series A (NPFGC): 5.38%, 11/01/34	10,775	9,154,979
5.13%, 11/01/36	1,750	1,415,575
Volusia County IDA, RB, Student Housing, Stetson University Project, Series A (CIFG), 5.00%, 6/01/35	1,740	1,423,146
		95,877,285
Georgia 4.5%		
Augusta-Richmond County Georgia, RB (AGM), 5.25%, 10/01/39	4,350	4,463,187
County of Fulton Georgia, RB (NPFGC), 5.25%, 1/01/35	7,575	7,750,513
Gwinnett County Hospital Authority, Refunding RB, Gwinnett Hospital System, Series D (AGM), 5.50%, 7/01/41	6,445	6,444,678

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Metropolitan Atlanta Rapid Transit Authority, RB, Third Indenture, Series B (AGM), 5.00%, 7/01/34	4,240	4,270,782
		<u>22,929,160</u>

Illinois 14.9%

Chicago Board of Education Illinois, GO, Refunding, Chicago School Reform Board, Series A (NPFGC), 5.50%, 12/01/26	3,745	3,863,155
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Municipal Bonds	Par (000)	Value
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Illinois (concluded)

Chicago Transit Authority, RB, Federal Transit Administration Section 5309, Series A (AGC), 6.00%, 6/01/26	\$ 6,315	\$ 6,971,507
City of Chicago Illinois, GO, Refunding, Projects, Series A (AGM), 5.00%, 1/01/29	1,180	1,174,489
City of Chicago Illinois, RB: General Airport, Third Lien, Series A (NPFGC), 5.00%, 1/01/33	5,000	4,777,350
General, Third Lien, Series C (AGM), 5.25%, 1/01/35	4,905	4,962,192
City of Chicago Illinois, Refunding RB: General, Third Lien, Series C, 6.50%, 1/01/41	16,055	17,639,147
General, Third Lien, Series C (AGC), 5.25%, 1/01/23	3,975	4,299,837
Second Lien (NPFGC), 5.50%, 1/01/30	4,075	4,278,791
Illinois Finance Authority, RB, University of Chicago, Series B, 5.50%, 7/01/37	10,000	10,588,000
Illinois Municipal Electric Agency, RB, Series A (NPFGC), 5.25%, 2/01/35	2,700	2,722,167
Railsplitter Tobacco Settlement Authority, RB: 5.50%, 6/01/23	4,365	4,327,243
6.00%, 6/01/28	1,245	1,248,710
State of Illinois, RB: (AGM), 5.00%, 6/15/27	3,000	3,069,240
Build Illinois, Series B, 5.25%, 6/15/26	5,625	5,996,644
		<u>75,918,472</u>

Indiana 2.9%

Indianapolis Local Public Improvement Bond Bank, Refunding RB, Watetrworks Project, Series A (AGC), 5.50%, 1/01/38	14,105	14,562,848
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Iowa 0.7%

Iowa Finance Authority, Refunding RB, Iowa Health System (AGC), 5.25%, 2/15/29	3,375	3,454,144
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Kentucky 0.5%

Kentucky State Property & Buildings Commission, Refunding RB, Project No. 93 (AGC), 5.25%, 2/01/28	2,500	2,646,875
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Louisiana 1.8%

East Baton Rouge Sewerage Commission, RB, Series A, 5.25%, 2/01/34	1,370	1,417,950
Louisiana State Citizens Property Insurance Corp., RB, Series C-3 (AGC), 6.13%, 6/01/25	5,475	6,122,200
New Orleans Aviation Board Louisiana, Refunding RB, GARB, Restructuring (AGC): Series A-1, 6.00%, 1/01/23	500	566,235

Schedule of Investments (continued)

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(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Louisiana (concluded)		
New Orleans Aviation Board Louisiana, Refunding RB, GARB, Restructuring (AGC): Series A-2, 6.00%, 1/01/23	\$ 720	815,378
		<u>8,921,763</u>
Maryland 0.3%		
Maryland Health & Higher Educational Facilities Authority, Refunding RB, University of Maryland Medical System, 5.13%, 7/01/39	1,895	1,773,322
Michigan 16.0%		
City of Detroit Michigan, RB: Second Lien, Series B (AGM), 6.25%, 7/01/36	6,320	6,857,200
Second Lien, Series B (AGM), 7.00%, 7/01/36	850	970,352
Second Lien, Series B (NPFGC), 5.50%, 7/01/29	7,490	7,512,844
Senior Lien, Series B (AGM), 7.50%, 7/01/33	6,600	7,733,616
System, Second Lien, Series A (BHAC), 5.50%, 7/01/36	20,540	20,863,710
City of Detroit Michigan, Refunding RB: Second Lien, Series E (BHAC), 5.75%, 7/01/31	6,000	6,272,640
Senior Lien, Series C-1 (AGM), 7.00%, 7/01/27	9,055	10,567,728
Kalamazoo Hospital Finance Authority, RB, Bronson Methodist Hospital (AGM), 5.25%, 5/15/36	910	892,610
Michigan State Building Authority, RB, Facilities Program, Series H (AGM), 5.00%, 10/15/26	1,760	1,839,464
Michigan State Building Authority, Refunding RB, Facilities Program, Series I (AGC): 5.25%, 10/15/22	6,150	6,772,503
5.25%, 10/15/24	2,755	2,975,042
5.25%, 10/15/25	1,435	1,535,335
Royal Oak Hospital Finance Authority Michigan, Refunding RB, William Beaumont Hospital, 8.25%, 9/01/39	5,780	6,633,475

81,426,519

Minnesota 2.1%

City of Minneapolis Minnesota, Refunding RB, Fairview Health Services, Series B (AGC), 6.50%, 11/15/38	9,900	10,712,097
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Nebraska 1.0%

Nebraska Investment Finance Authority, Refunding RB, Series A: 5.90%, 9/01/36	3,650	3,791,912
6.05%, 9/01/41	1,305	1,341,410

 5,133,322

Municipal Bonds	Par (000)	Value
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Nevada 8.0%

Clark County Water Reclamation District, GO, Series A, 5.25%, 7/01/34	\$ 11,140	
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