

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)

BlackRock MuniHoldings Investment Quality Fund (MFL)
(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

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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	\$ 11,570,449
County of Clark Nevada, RB: Las Vegas-McCarran International Airport, Series A (AGC), 5.25%, 7/01/39	15,005	14,596,264
Subordinate Lien, Series A-2 (NPFGC), 5.00%, 7/01/36	15,500	14,372,065
		<hr/> 40,538,778

New Jersey 2.2%

New Jersey EDA, RB, School Facilities Construction, Series Z (AGC), 6.00%, 12/15/34	4,350	4,656,980
New Jersey Health Care Facilities Financing Authority, RB, Virtua Health (AGC), 5.50%, 7/01/38	6,500	6,648,590
		<hr/> 11,305,570

New York 6.8%

New York City Municipal Water Finance Authority, RB: Fiscal 2009, Series EE, 5.25%, 6/15/40	7,500	7,834,650
Second General Resolution, Series EE, 5.38%, 6/15/43	6,705	7,107,770
Series FF-2, 5.50%, 6/15/40	4,000	4,264,480
New York City Municipal Water Finance Authority, Refunding RB, Series D, 5.00%, 6/15/37	5,000	5,039,850
New York City Transitional Finance Authority, RB, Fiscal 2009: Series S-3, 5.25%, 1/15/39	5,625	5,802,806
Series S-4 (AGC), 5.50%, 1/15/29	4,000	4,298,200
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Ohio 1.4%

Ohio Higher Educational Facility Commission, Refunding RB, Summa Health System, 2010 Project (AGC), 5.25%, 11/15/40	7,725	7,348,638
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Pennsylvania 1.2%

Pennsylvania Turnpike Commission, RB, Sub-Series A, 6.00%, 12/01/41	4,945	5,079,850
Pittsburgh & Allegheny County Sports & Exhibition Authority, Refunding RB, Regional Asset District Sales Tax (AGM), 5.00%, 2/01/31	1,280	1,296,819

6,376,669

Puerto Rico 2.2%

Puerto Rico Highway & Transportation Authority, Refunding RB, Series CC (AGM), 5.50%, 7/01/30	4,000	4,158,720
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Schedule of Investments (continued)

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

Municipal Bonds	Par (000)	Value
Puerto Rico (concluded)		
Puerto Rico Sales Tax Financing Corp., RB, First Sub-Series A, 6.38%, 8/01/39	\$ 6,610	\$ 6,976,921
		<u>11,135,641</u>
Texas 19.5%		
City of Austin Texas, Refunding RB, Series A (AGM):		
5.00%, 11/15/28	3,360	3,530,419
5.00%, 11/15/29	4,255	4,433,923
City of Houston Texas, Refunding RB, Combined First Lien, Series A (AGC):		
6.00%, 11/15/35	12,700	14,132,306
6.00%, 11/15/36	9,435	10,472,284
5.38%, 11/15/38	5,000	5,252,200
Clifton Higher Education Finance Corp., Refunding RB, Baylor University, 5.25%, 3/01/32	5,690	5,972,964
Dallas Area Rapid Transit, Refunding RB, Senior Lien, 5.25%, 12/01/38	10,110	10,588,203
Harris County Health Facilities Development Corp., Refunding RB, Memorial Hermann Healthcare System, Series B, 7.25%, 12/01/35	1,500	1,650,855
Lower Colorado River Authority, Refunding RB, LCRA Transmission Services Project (AGC), 5.50%, 5/15/36	3,295	3,406,338
Lubbock Cooper ISD Texas, GO, School Building (AGC), 5.75%, 2/15/42	2,300	2,410,492
North Texas Tollway Authority, RB, System, First Tier, Series K-1 (AGC), 5.75%, 1/01/38	12,400	12,775,348
North Texas Tollway Authority, Refunding RB, System, First Tier: (AGM), 6.00%, 1/01/43	5,555	5,865,302
Series A (AGC), 5.75%, 1/01/40	7,000	7,184,520
Series A (NPFGC), 5.13%, 1/01/28	9,645	9,787,167
Tarrant County Cultural Education Facilities Finance Corp., Refunding RB, Christus Health, Series A (AGC), 6.50%, 7/01/37	1,770	1,862,766
		<u>99,325,087</u>

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Utah 1.2%

City of Riverton Utah, RB, IHC Health Services Inc., 5.00%, 8/15/41	6,375	6,200,261
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Virginia 0.9%

Virginia Public School Authority, RB, School Financing, 6.50%, 12/01/35	4,300	4,816,215
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Washington 1.6%

City of Seattle Washington, Refunding RB, Series A, 5.25%, 2/01/36	4,200	4,437,720
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Municipal Bonds	Par (000)	Value
Washington (concluded)		
State of Washington, GO, Various Purpose, Series B, 5.25%, 2/01/36	\$ 3,290	\$ 3,494,737
		<u>7,932,457</u>
Total Municipal Bonds 136.6%		694,387,089

Municipal Bonds Transferred to Tender Option Bond Trusts (a)

Alabama 1.3%

Mobile Board of Water & Sewer Commissioners, RB (NPFGC), 5.00%, 1/01/31	6,500	6,592,690
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California 3.0%

California State University, Refunding RB, Systemwide, Series A (AGM), 5.00%, 11/01/32	7,960	7,836,302
Los Angeles Unified School District California, GO, Series I, 5.00%, 1/01/34	2,400	2,406,216
San Diego Community College District California, GO, Election of 2002 (AGM), 5.00%, 5/01/30	5,000	5,061,800
		<u>15,304,318</u>

District of Columbia 0.7%

District of Columbia Water & Sewer Authority, RB, Series A, 6.00%, 10/01/35	3,381	3,758,673
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Florida 5.0%

City of Jacksonville Florida, RB, Better Jacksonville (NPFGC), 5.00%, 10/01/27	10,000	10,153,200
Hillsborough County Aviation Authority, RB, Series A, AMT (AGC), 5.50%, 10/01/38	10,657	10,391,272

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Lee County Housing Finance Authority, RB, Multi-County Program, Series A-2 AMT, (Ginnie Mae), 6.00%, 9/01/40	4,320	4,706,208
		25,250,680

Illinois 1.5%

Chicago Transit Authority, Refunding RB, Federal Transit Administration Section 5309 (AGM), 5.00%, 6/01/28	7,737	7,632,577
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Indiana 1.9%

Indiana Health & Educational Facilities Financing Authority, Refunding RB, St. Francis, Series E (AGM), 5.25%, 5/15/41	9,850	9,761,547
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Schedule of Investments (continued)

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

Municipal Bonds Transferred to Tender Option Bond Trusts (a)	Par (000)	Value
Kentucky 0.1%		
Kentucky State Property & Building Commission, Refunding RB, Project No. 93 (AGC), 5.25%, 2/01/27	\$ 404	\$ 429,683
Nevada 2.8%		
Clark County Water Reclamation District, GO: Limited Tax, 6.00%, 7/01/38 Series B, 5.50%, 7/01/29	8,000 5,008	8,776,480 5,400,902
		<u>14,177,382</u>
New Jersey 3.1%		
New Jersey State Housing & Mortgage Finance Agency, RB, S/F Housing, Series CC, 5.25%, 10/01/29 New Jersey Transportation Trust Fund Authority, RB, Transportation System, Series A (AGM), 5.00%, 12/15/32	7,532 8,000	7,632,867 8,048,560
		<u>15,681,427</u>
New York 3.8%		
New York City Municipal Water Finance Authority, RB, Series FF-2, 5.50%, 6/15/40 New York State Dormitory Authority, ERB, Series B, 5.25%, 3/15/38	4,994 13,500	5,323,884 14,076,990
		<u>19,400,874</u>
Texas 2.5%		
City of San Antonio Texas, Refunding RB, Series A, 5.25%, 2/01/31	12,027	12,904,252
Total Municipal Bonds Transferred to Tender Option Bond Trusts 25.7%		130,894,103
Total Long-Term Investments (Cost \$812,069,583) 162.3%		825,281,192

Short-Term Securities

Shares

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FFI Institutional Tax-Exempt Fund, 0.11% (b)(c)	15,031,057	15,031,057
Total Short-Term Securities (Cost \$15,031,057) 3.0%		15,031,057
Total Investments (Cost \$827,100,640*) 165.3%		840,312,249
Other Assets Less Liabilities 2.1%		10,749,906
Liability for Trust Certificates, Including Interest		
Expense and Fees Payable (13.4)%		(68,151,969)
Preferred Shares, at Redemption Value (54.0)%		(274,666,834)
Net Assets Applicable to Common Shares 100.0%		\$ 508,243,352

* The cost and unrealized appreciation (depreciation) of investments as of May 31, 2011, as computed for federal income tax purposes, were as follows:

Aggregate Cost	\$ 759,063,147
Gross unrealized appreciation	\$ 22,298,346
Gross unrealized depreciation	(9,139,303)
Net unrealized appreciation	\$ 13,159,043

- (a) Securities represent bonds transferred to a tender option bond trust in exchange for which the Fund acquired residual interest certificates. These securities serve as collateral in a financing transaction.
- (b) Investments in companies considered to be an affiliate of the Fund during the period, 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, 2010	Net Activity	Shares Held at May 31, 2011	Income
FFI Institutional Tax-Exempt Fund	32,301,054	(17,269,997)	15,031,057	\$ 26,346

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

Financial futures contracts sold as of May 31, 2011 were as follows:

Contracts	Issue	Exchange	Expiration
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				Notional Value	Unrealized Depreciation
363	10-Year U.S. Treasury Note	Chicago Board of Trade	June 2011	\$ 43,020,482	\$ (2,002,862)
131	10-Year U.S. Treasury Note	Chicago Board of Trade	September 2011	\$ 16,040,087	(21,741)
Total					\$ (2,024,603)

Fair Value Measurements - Various inputs are used in determining the fair value of investments and derivative financial instruments. These inputs are summarized in three broad levels for financial reporting purposes as follows:

Level 1 price quotations in active markets/exchanges for identical assets and liabilities

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)

Schedule of Investments (concluded)

BlackRock MuniHoldings Investment Quality Fund (MFL)

The inputs or methodologies used for valuing securities are not necessarily an indication of the risk associated with investing in those securities. For information about the Fund's policy regarding valuation of investments and derivative financial instruments and other significant accounting policies, please refer to the Fund's most recent financial statements as contained in its semi-annual report.

The following tables summarize the inputs used as of May 31, 2011 in determining the fair valuation of the Fund's investments and derivative financial instruments:

Valuation Inputs	Level 1	Level 2	Level 3	Total
Assets:				
Investments:				
Long-Term Investments ¹		\$ 825,281,192		\$ 825,281,192
Short-Term Securities	\$ 15,031,057			15,031,057
Total	\$ 15,031,057	\$ 825,281,192		\$ 840,312,249

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

Valuation Inputs	Level 1	Level 2	Level 3	Total
Liabilities:				
Derivative Financial Instruments ²				
Interest rate contracts	\$ (2,024,603)			\$ (2,024,603)

² Derivative financial instruments are financial futures contracts, which are valued at the unrealized appreciation/depreciation on the instrument.

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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: July 26, 2011

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: July 26, 2011

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

Date: July 26, 2011