

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 |
|--|-------|-----------|

| Municipal Bonds | Par (000) | Value |
|-----------------|--------------|-------|
|-----------------|--------------|-------|

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 |
|--|--------|------------|

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 |
|--|-------|-----------|

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 |
| | | 8,921,763 |
| 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 |

| | | |
|---|-------|-----------|
| 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 |
|-----------------|--------------|-------|
|-----------------|--------------|-------|

| | | |
|---|-----------|---------------|
| 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 |

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 |
|--|-------|-----------|

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 |

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 |
|--|-------|-----------|

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 |
|---|-------|-----------|

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 |
|---|-------|-----------|

Virginia 0.9%

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

Washington 1.6%

| | | |
|--|-------|-----------|
| City of Seattle Washington, Refunding RB, Series A, 5.25%, 2/01/36 | 4,200 | 4,437,720 |
|--|-------|-----------|

| 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 |
|---|-------|-----------|

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 |
|---|-------|-----------|

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 |
|--|-------|-----------|

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 |
|---|-------|-----------|

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
