

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

NOVEMBER 30, 2013

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

BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND

NOVEMBER 30, 2013

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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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BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND

NOVEMBER 30, 2013

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

BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND

NOVEMBER 30, 2013

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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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BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND

NOVEMBER 30, 2013

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 | | |
| (Cost \$11,085,974) 2.2% | | 11,085,974 |
| Total Investments | | |
| (Cost \$856,540,292*) 169.4% | | 884,090,865 |
| 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