

BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND
Form N-Q
January 22, 2018

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: 08/31/2018

Date of reporting period: 11/30/2017

Item 1 Schedule of Investments

Schedule of Investments (unaudited)

BlackRock MuniHoldings Investment Quality Fund (MFL)

November 30, 2017

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
Municipal Bonds 126.3%		
Alabama 3.4%		
City of Birmingham Alabama Special Care Facilities Financing Authority, RB, Children s Hospital (AGC) ^(a) :		
6.00%, 06/01/19	\$ 10,995	\$ 11,708,685
6.13%, 06/01/19	4,980	5,312,365
City of Selma Alabama IDB, RB, Gulf Opportunity Zone, International Paper Co. Project, Series A, 5.38%, 12/01/35	1,745	1,948,537
		18,969,587
Arizona 1.5%		
County of Maricopa Arizona IDA, RB, Banner Health, Series A, 5.00%, 01/01/41	3,750	4,348,350
Salt River Project Agricultural Improvement & Power District, Refunding RB, Series A, 5.00%, 01/01/38	900	1,056,897
University of Arizona Board of Regents, Refunding RB, Series A, 5.00%, 06/01/40	2,300	2,639,825
		8,045,072
California 24.2%		
California Educational Facilities Authority, RB, University of Southern California, Series A, 5.25%, 10/01/18 ^(a)	4,000	4,130,840
California Health Facilities Financing Authority, RB, Sutter Health, Series B, 6.00%, 08/15/42	5,370	6,022,992
City & County of San Francisco California Airports Commission, Refunding ARB, AMT, Series A:		
2nd, 5.50%, 05/01/28	3,330	3,896,633
2nd, 5.25%, 05/01/33	2,600	2,972,268
5.00%, 05/01/44	3,430	3,856,932
City of Los Angeles California Department of Airports, ARB:		
Sub-Series A, AMT, 5.00%, 05/15/42	4,500	5,231,520
Sub-Series B, 5.00%, 05/15/42	2,500	2,937,850
Subordinate, Los Angeles International Airport, Series B, AMT, 5.00%, 05/15/46	4,000	4,580,120
City of Los Angeles California Department of Water & Power, RB, Power System, Sub-Series A-1, 5.25%, 07/01/38	5,000	5,115,650
City of Manteca California Financing Authority, RB, Manteca Sewer (AGC): 5.63%, 12/01/33	2,450	2,642,031
	<i>Par (000)</i>	<i>Value</i>
California (continued)		
City of Manteca California Financing Authority, RB, Manteca Sewer (AGC) (continued): 5.75%, 12/01/36	\$ 3,285	\$ 3,547,800
City of San Jose California, Refunding ARB, Norman Y Mineta San Jose International Airport SJC, Series A-1, AMT, 5.75%, 03/01/34	4,450	4,950,358

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County of Sacramento California, ARB, Senior Series A (AGC), 5.50%, 07/01/18 ^(a)	5,600	5,736,528
Irvine Ranch Water District, Special Assessment Bonds, 5.25%, 02/01/46	7,000	8,399,580
Kern Community College District, GO, Safety, Repair & Improvement, Series C, 5.50%, 11/01/33	4,365	5,225,734
Metropolitan Water District of Southern California, Refunding RB, Series A, 5.00%, 07/01/32	5,625	6,710,906
Redondo Beach Unified School District, GO, Election of 2008, Series E, 5.50%, 08/01/21 ^(a)	3,110	3,541,637
San Diego Public Facilities Financing Authority Water, Refunding RB, Series B (AGC), 5.38%, 08/01/19 ^(a)	2,000	2,124,380
Santa Clara Unified School District, GO, Refunding, 3.00%, 07/01/36	5,580	5,378,953
State of California, GO, Various Purposes (AGC), 5.50%, 11/01/39	15,000	16,127,400
State of California Public Works Board, LRB, Various Capital Projects, Series I: 5.50%, 11/01/30	4,500	5,312,970
5.50%, 11/01/31	2,615	3,082,667
5.50%, 11/01/33	2,000	2,345,600
State of California Public Works Board, RB, Department of Corrections & Rehabilitation, Series F, 5.25%, 09/01/33	3,240	3,741,811
Township of Washington California Health Care District, GO, Election of 2004, Series B, 5.50%, 08/01/40	1,685	2,005,757
University of California, Refunding RB, The Regents of Medical Center, Series J, 5.25%, 05/15/38	12,250	14,217,227
		133,836,144
Colorado 2.2%		
City & County of Denver Colorado Airport System, ARB, Series A, AMT: 5.50%, 11/15/28	2,700	3,132,054
5.50%, 11/15/30	1,040	1,198,985
5.50%, 11/15/31	1,250	1,437,388

SCHEDULES OF INVESTMENTS

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Schedule of Investments (unaudited) (continued) **BlackRock MuniHoldings Investment Quality Fund (MFL)**

November 30, 2017

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
Colorado (continued)		
Colorado Health Facilities Authority, RB, Hospital, NCMC, Inc. Project, Series B (AGM), 6.00%, 05/15/19 ^(a)	\$ 5,925	\$ 6,289,387
		12,057,814
District of Columbia 0.6%		
District of Columbia Water & Sewer Authority, Refunding RB, Series A, 6.00%, 10/01/18 ^(a)	3,000	3,115,770
Florida 7.3%		
City of Jacksonville Florida, Refunding RB, Series A, 5.25%, 10/01/33	1,250	1,438,875
County of Hillsborough Florida Aviation Authority, Refunding ARB, Tampa International Airport, Series A, AMT: 5.50%, 10/01/29	5,360	6,201,252
5.25%, 10/01/30	3,255	3,710,798
County of Lee Florida, Refunding ARB, Series A, AMT, 5.38%, 10/01/32	7,100	7,850,754
County of Lee Florida HFA, RB, S/F Housing, Multi-County Program, Series A-2, AMT (Ginnie Mae), 6.00%, 09/01/40	420	423,637
County of Manatee Florida HFA, RB, S/F Housing, Series A, AMT (Ginnie Mae, Fannie Mae & Freddie Mac), 5.90%, 09/01/40	220	223,247
County of Miami-Dade Florida, RB, Seaport Department: Series A, 5.38%, 10/01/33	3,145	3,557,498
Series B, AMT, 6.25%, 10/01/38	1,405	1,671,276
Series B, AMT, 6.00%, 10/01/42	1,885	2,189,446
County of Miami-Dade Florida, Refunding RB, Water & Sewer System, Series B, 5.25%, 10/01/29	2,870	3,335,801
County of Miami-Dade Florida Aviation, Refunding ARB, Series A, AMT, 5.00%, 10/01/31	5,465	6,063,800
Reedy Creek Florida Improvement District, GO, Series A, 5.25%, 06/01/32	3,225	3,720,360
		40,386,744
Hawaii 2.0%		
State of Hawaii, Department of Transportation, COP, AMT: 5.25%, 08/01/25	1,350	1,520,411
5.25%, 08/01/26	2,500	2,803,075
	<i>Par (000)</i>	<i>Value</i>
Security		
Hawaii (continued)		
State of Hawaii, Department of Transportation, RB, Series A, AMT, 5.00%, 07/01/45	\$ 5,985	\$ 6,743,060
		11,066,546
Illinois 18.2%		
City of Chicago Illinois Midway International Airport, Refunding ARB, 2nd Lien, Series A, AMT: 5.50%, 01/01/30	6,500	7,387,315

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5.50%, 01/01/32	6,275	7,096,586
City of Chicago Illinois Midway International Airport, Refunding GARB, 2nd Lien, Series A, AMT, 5.00%, 01/01/41	8,020	8,871,724
City of Chicago Illinois O Hare International Airport, ARB, Senior Lien, Series D, 5.25%, 01/01/42	2,630	3,106,188
City of Chicago Illinois O Hare International Airport, GARB, 3rd Lien: Series A, 5.75%, 01/01/21 ^(a)	6,210	6,960,292
Series A, 5.75%, 01/01/39	1,185	1,313,122
Series C, 6.50%, 01/01/21 ^(a)	16,800	19,205,760
City of Chicago Illinois O Hare International Airport, Refunding ARB, Series C, 5.00%, 01/01/37	1,000	1,136,320
City of Chicago Illinois Transit Authority, RB: Federal Transit Administration, Section 5309, Series A (AGC), 6.00%, 12/01/18 ^(a)	6,000	6,278,160
Sales Tax Receipts, 5.25%, 12/01/40	10,960	11,748,901
City of Chicago Illinois Transit Authority, Refunding RB, Federal Transit Administration, Section 5309 (AGM), 5.00%, 06/01/28	7,735	8,124,612
Illinois Finance Authority, RB, Carle Foundation, Series A, 6.00%, 08/15/41	4,000	4,515,800
Railsplitter Tobacco Settlement Authority, RB: 5.50%, 06/01/23	4,365	4,924,986
6.00%, 06/01/28	1,245	1,399,591

Schedule of Investments (unaudited) (continued) **BlackRock MuniHoldings Investment Quality Fund (MFL)**

November 30, 2017

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
Illinois (continued)		
State of Illinois Finance Authority, RB, University of Chicago, Series B, 5.50%, 07/01/18 ^(a)	\$ 8,000	\$ 8,191,280
		100,260,637
Indiana 4.2%		
Indiana Finance Authority, Refunding RB, Stadium Project, Series A, 5.25%, 02/01/37	3,130	3,659,878
Indiana Municipal Power Agency, Refunding RB, Series A ^(a) : 5.25%, 07/01/23	1,500	1,768,080
5.25%, 07/01/23	1,500	1,768,080
Indianapolis Local Public Improvement Bond Bank, Refunding RB, Waterworks Project, Series A (AGC): 5.50%, 01/01/19 ^(a)	2,760	2,876,362
5.50%, 01/01/38	11,345	11,802,090
State of Indiana Finance Authority, RB, Private Activity Bond, Ohio River Bridges, Series A, AMT, 5.00%, 07/01/40	1,240	1,339,299
		23,213,789
Kansas 0.9%		
County of Wyandotte Kansas Unified School District, GO, Series A, 5.50%, 09/01/47	4,000	4,856,320
Kentucky 0.0%		
Kentucky State Property & Building Commission, Refunding RB, Project No. 93 (AGC), 5.25%, 02/01/19 ^(a)	45	46,861
Louisiana 0.9%		
City of New Orleans Louisiana Aviation Board, Refunding GARB, Restructuring (AGC) ^(a) : Series A-1, 6.00%, 01/01/19	500	523,460
Series A-2, 6.00%, 01/01/19	720	753,782
Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A, 5.50%, 05/15/29	3,735	3,922,161
		5,199,403
Massachusetts 1.6%		
Massachusetts Bay Transportation Authority, Refunding RB, Sub Series A-2, 5.00%, 07/01/40	2,000	2,348,900
Massachusetts Development Finance Agency, Refunding RB, Partners Healthcare System, 5.00%, 07/01/41	4,710	5,367,799
	<i>Par (000)</i>	<i>Value</i>
Massachusetts (continued)		
Massachusetts Educational Financing Authority, RB, Education Loan, Issue I, AMT, 5.00%, 01/01/27	\$ 1,000	\$ 1,114,470

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		8,831,169
Michigan 3.5%		
City of Detroit Michigan Water Supply System Revenue, RB, 2nd Lien, Series B (AGM):		
6.25%, 07/01/19 ^(a)	6,310	6,765,456
6.25%, 07/01/36	10	10,622
Hudsonville Michigan Public Schools, GO, School Building & Site (Q-SBLF), 5.25%, 05/01/21 ^(a)	6,015	6,702,153
Royal Oak Hospital Finance Authority Michigan, Refunding RB, William Beaumont Hospital, Series V, 8.25%, 09/01/18 ^(a)	5,780	6,074,029
		19,552,260
Minnesota 1.6%		
City of Minneapolis Minnesota, Refunding RB, Fairview Health Services, Series B (AGC), 6.50%, 11/15/38	8,375	8,763,181
Mississippi 2.8%		
Mississippi Development Bank, RB, Jackson Water & Sewer System Project (AGM):		
6.88%, 12/01/40	6,405	7,999,781
Special Obligation, 6.75%, 12/01/31	3,775	4,688,739
Special Obligation, 6.75%, 12/01/33	2,350	2,918,817
		15,607,337
Nevada 2.2%		
County of Clark Nevada, ARB, Las Vegas-McCarran International Airport, Series A (AGM), 5.25%, 07/01/39	11,175	12,025,529
New Jersey 6.9%		
New Jersey EDA, RB, Goethals Bridge Replacement Project, AMT, Private Activity Bond:		
5.38%, 01/01/43	7,000	7,789,390
(AGM), 5.00%, 01/01/31	2,425	2,728,295
New Jersey EDA, Refunding RB, Series B, 5.50%, 06/15/30	2,330	2,699,841
New Jersey Health Care Facilities Financing Authority, RB, Virtua Health, Series A (AGC), 5.50%, 07/01/38	6,500	6,909,630

SCHEDULES OF INVESTMENTS

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Schedule of Investments (unaudited) (continued) **BlackRock MuniHoldings Investment Quality Fund (MFL)**

November 30, 2017

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
New Jersey (continued)		
New Jersey Higher Education Student Assistance Authority, Refunding RB, Series 1, AMT, 5.75%, 12/01/28	\$ 2,795	\$ 3,040,401
New Jersey Transportation Trust Fund Authority, RB, Transportation System:		
Series A, 5.50%, 06/15/41	5,410	5,803,523
Series AA, 5.50%, 06/15/39	8,175	8,930,370
		37,901,450
New York 10.1%		
City of New York New York Municipal Water Finance Authority, Refunding RB, 2nd General Resolution, Series EE:		
Fiscal 2009, 5.25%, 06/15/40	7,500	7,900,500
Water & Sewer System, 5.38%, 06/15/43	3,475	3,831,118
City of New York New York Water & Sewer System, Refunding RB, 2nd General Resolution, Series FF-2, 5.50%, 06/15/40	4,000	4,233,040
Metropolitan Transportation Authority, RB:		
Series A, 5.25%, 11/15/21 ^(a)	4,000	4,538,200
Series A-1, 5.25%, 11/15/39	4,490	5,238,528
Metropolitan Transportation Authority, Refunding RB:		
Series B, 5.00%, 11/15/37	6,140	7,092,068
Series C-1, 5.25%, 11/15/56	4,000	4,677,640
Port Authority of New York & New Jersey, Refunding ARB, Consolidated:		
166th Series, 5.25%, 07/15/36	10,000	11,014,400
206th Series, AMT, 5.00%, 11/15/37	850	988,108
Port Authority of New York & New Jersey, Refunding RB, Consolidated, 205th Series, 5.25%, 05/15/42	900	1,080,747
Triborough Bridge & Tunnel Authority, Refunding RB, General, Series B, 5.00%, 11/15/38	4,500	5,280,030
		55,874,379
Ohio 1.5%		
State of Ohio Turnpike Commission, RB, Junior Lien, Infrastructure Projects, Series A-1: 5.25%, 02/15/31	5,145	5,927,915
	<i>Par (000)</i>	<i>Value</i>
Security		
Ohio (continued)		
State of Ohio Turnpike Commission, RB, Junior Lien, Infrastructure Projects, Series A-1 (continued):		
5.25%, 02/15/32	\$ 2,250	\$ 2,587,590
		8,515,505
Pennsylvania 4.6%		
Pennsylvania Turnpike Commission, RB, Sub-Series A, 5.50%, 12/01/46	18,570	21,805,080
Township of Bristol Pennsylvania School District, GO, 5.25%, 06/01/37	3,000	3,386,370

		25,191,450
South Carolina 6.8%		
County of Charleston South Carolina, RB, Special Source, 5.25%, 12/01/38	6,735	7,832,940
County of Charleston South Carolina Airport District, ARB, Series A, AMT: 5.25%, 07/01/25	4,490	5,171,627
5.50%, 07/01/38	3,000	3,395,490
6.00%, 07/01/38	5,270	6,119,998
5.50%, 07/01/41	4,170	4,715,144
State of South Carolina Ports Authority, RB, AMT, 5.25%, 07/01/50	3,445	3,852,750
State of South Carolina Public Service Authority, Refunding RB, Series E, 5.25%, 12/01/55	5,500	6,219,125
		37,307,074
Texas 14.8%		
City of Beaumont Texas, GO, Certificates of Obligation, 5.25%, 03/01/37	4,190	4,759,211
City of Houston Texas Combined Utility System Revenue, Refunding RB, Combined 1st Lien, Series A (AGC):		
6.00%, 05/15/19 ^(a)	12,030	12,778,747
6.00%, 05/15/19 ^(a)	8,940	9,496,425
6.00%, 11/15/35	670	714,093
6.00%, 11/15/36	495	527,576
5.38%, 11/15/38	265	278,510
County of Tarrant Texas Cultural Education Facilities Finance Corp., Refunding RB, Christus Health, Series A (AGC), 6.50%, 07/01/37	1,450	1,519,832
Dallas-Fort Worth Texas International Airport, ARB, Joint Improvement, AMT: Series A, 5.00%, 11/01/38	5,580	5,983,434
Series H, 5.00%, 11/01/37	4,575	5,001,802
Lower Colorado River Authority, Refunding RB, 5.50%, 05/15/33	3,735	4,351,910

Schedule of Investments (unaudited) (continued) **BlackRock MuniHoldings Investment Quality Fund (MFL)**

November 30, 2017

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
Texas (continued)		
North Texas Tollway Authority, Refunding RB, 1st Tier (a): (AGM), 6.00%, 01/01/21	\$ 5,555	\$ 6,276,539
Series K-1 (AGC), 5.75%, 01/01/19	12,150	12,687,759
Red River Texas Education Financing Corp., RB, Texas Christian University Project, 5.25%, 03/15/38	7,170	8,143,256
Texas Water Development Board, RB: Series A, 5.00%, 10/15/40	3,170	3,671,209
State Water Implementation Revenue, 5.25%, 10/15/46	4,780	5,693,458
		81,883,761
Utah 1.6%		
County of Utah Utah, RB, IHC Health Services, Inc., Series B, 5.00%, 05/15/46	7,500	8,613,450
Virginia 1.2%		
City of Lexington Virginia IDA, RB, Washington & Lee University, 5.00%, 01/01/43	1,750	1,923,460
State of Virginia Public School Authority, RB, Fluvanna County School Financing, 6.50%, 12/01/18 ^(a)	4,300	4,518,268
		6,441,728
Washington 1.7%		
City of Richland Washington, GO, Refunding, 5.00%, 12/01/45	1,175	1,368,910
City of Seattle Washington Municipal Light & Power, Refunding RB, Series A, 5.25%, 02/01/21 ^(a)	4,200	4,655,112
State of Washington, GO, Various Purposes, Series B, 5.25%, 02/01/21 ^(a)	3,290	3,651,900
		9,675,922
Total Municipal Bonds 126.3% (Cost \$649,127,851)		697,238,882

Municipal Bonds Transferred to Tender Option Bond Trusts^(b)**Alabama 8.2%**City of Birmingham Alabama Special Care Facilities Financing Authority, Refunding RB,
Senior Credit:

Ascension Health, Series C, 5.00%, 11/15/46

11,920 13,563,112

*Security**Par
(000)**Value***Alabama (continued)**City of Birmingham Alabama Special Care Facilities Financing Authority, Refunding RB,
Senior Credit (continued):

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Ascension Group, Series B, 5.00%, 11/15/46	\$ 27,798	\$ 31,630,231
		45,193,343
California 2.6%		
Los Angeles Unified School District California, GO, Series I, 5.00%, 01/01/34	2,400	2,522,412
University of California, Refunding RB, Series AR, 5.00%, 05/15/38	10,000	11,759,750
		14,282,162
Florida 2.0%		
County of Hillsborough Florida Aviation Authority, ARB, Tampa International Airport, Series A, AMT (AGC), 5.50%, 10/01/38	10,657	10,937,277
Indiana 1.8%		
Indiana Health & Educational Facilities Financing Authority, Refunding RB, St. Francis, Series E (AGM), 5.25%, 05/01/18	9,850	10,006,319
Massachusetts 2.9%		
Commonwealth of Massachusetts, GO, Series G, 4.00%, 09/01/42	15,000	15,860,950
Nevada 2.4%		
County of Clark Nevada Water Reclamation District, GO: Limited Tax, 6.00%, 07/01/18	8,000	8,214,120
Series B, 5.50%, 07/01/19	5,008	5,309,720
		13,523,840

SCHEDULES OF INVESTMENTS

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Schedule of Investments (unaudited) (continued) **BlackRock MuniHoldings Investment Quality Fund (MFL)**

November 30, 2017

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
New Jersey 3.3%		
New Jersey Housing & Mortgage Finance Agency, RB, S/F Housing, Series CC, 5.25%, 10/01/29	\$ 7,038	\$ 7,228,327
New Jersey Transportation Trust Fund Authority, RB, Transportation System: Series A (AMBAC), 5.00%, 12/15/32	8,000	8,017,920
Series B, 5.25%, 06/15/36 ^(c)	2,961	3,158,426
		18,404,673
New York 12.0%		
Hudson Yards Infrastructure Corp., RB, Fiscal 2012, Series A, 5.75%, 02/15/47 ^(c)	9,249	10,353,220
New York Liberty Development Corp., RB, 1 World Trade Center Port Authority Consolidated Bonds, 5.25%, 12/15/43 ^(c)	13,950	15,554,278
City of New York New York Transitional Finance Authority, BARB, Fiscal 2009, Series S-3, 5.25%, 01/15/39	5,619	5,839,235
New York City Transitional Finance Authority Future Tax Secured Revenue, RB, Fiscal 2017, Sub-Series B-1, 5.00%, 08/01/40	5,000	5,807,000
New York State Dormitory Authority, ERB, Personal Income Tax, Series B, 5.25%, 03/15/19	13,500	14,124,982
New York Liberty Development Corp., Refunding RB, 4 World Trade Center Project, 5.75%, 11/15/51	8,200	9,279,772
City of New York New York Municipal Water Finance Authority, Refunding RB, Water & Sewer System, 2nd General Resolution, Series FF-2, 5.50%, 06/15/40	4,995	5,280,298
		66,238,785
Texas 7.5%		
North Texas Tollway Authority, RB, Special Projects System, Series A, 5.50%, 09/01/21	9,640	10,923,277
	<i>Par/Shares (000)</i>	<i>Value</i>
Security		
Texas (continued)		
State of Texas, GO, Texas Transportation Commission, Highway Improvement, 5.00%, 04/01/43	15,550	\$ 18,049,040
City of San Antonio Texas Public Service Board, Refunding RB, Series A, 5.25%, 02/01/19 ^(c)	12,027	12,521,017
		41,493,334
Utah 1.2%		
City of Riverton Utah, RB, IHC Health Services, Inc., 5.00%, 08/15/41	6,373	6,699,077
Total Municipal Bonds Transferred to Tender Option Bond Trusts 43.9% (Cost \$237,398,906)		242,639,760
		939,878,642

Total Investments	170.2%	
(Cost \$886,526,757)		
Other Assets Less Liabilities	1.8%	9,699,178
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable	(22.3)%	(123,284,499)
VRDP Shares at Liquidation Value, Net of Deferred Offering Costs	(49.7)%	(274,200,434)
Net Assets Applicable to Common		
Shares	100.0%	\$ 552,092,887

Schedule of Investments (unaudited) (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

November 30, 2017

(Percentages shown are based on Net Assets)

- (a) U.S. 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) Represent bonds transferred to a TOB Trust in exchange of cash and residual certificates received by the Trust. These bonds serve as collateral in a secured borrowing.
- (c) All or a portion of security is subject to a recourse agreement. The aggregate maximum potential amount the Trust could ultimately be required to pay under the agreement, which expire between September 6, 2018 to November 15, 2019 is \$19,874,974.

During the period ended November 30, 2017, investments in issuers considered to be an affiliate of the Trust for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

<i>Affiliate</i>	<i>Shares Held at 08/31/17</i>	<i>Net Activity</i>	<i>Shares Held at 11/30/17</i>	<i>Value at 11/30/17</i>	<i>Income</i>	<i>Change in Net Unrealized Realized Gain^(a)(Depreciation)</i>
BlackRock Liquidity Funds, MuniCash, Institutional Class					\$ 1,903	\$ 7

(a) Includes net capital gain distributions, if applicable.

For Trust compliance purposes, the Trust's sector classifications refer to one or more of the sector sub-classifications used by one or more widely recognized market indexes or rating group indexes, and/or as defined by the investment adviser. These definitions may not apply for purposes of this report, which may combine such sector sub-classifications for reporting ease

Derivative Financial Instruments Outstanding as of Period End

Futures Contracts

<i>Description</i>	<i>Number of Contracts</i>	<i>Expiration Date</i>	<i>Notional Amount (000)</i>	<i>Value / Unrealized Appreciation (Depreciation)</i>
Short Contracts				
5-Year U.S. Treasury Note	104	03/29/18	\$ 12,100	\$ 45,951
10-Year U.S. Treasury Note	66	03/20/18	8,187	58,986
Long U.S. Treasury Bond	68	03/20/18	10,317	108,184
Total				\$ 213,121

Portfolio Abbreviations

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
COP	Certificates of Participation
EDA	Economic Development Authority
ERB	Education Revenue Bonds
GARB	General Airport Revenue Bonds
GO	General Obligation Bonds
HFA	Housing Finance Agency

SCHEDULES OF INVESTMENTS

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Schedule of Investments (unaudited) (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

November 30, 2017

(Percentages shown are based on Net Assets)**Portfolio Abbreviations** (continued)

IDA	Industrial Development Authority
IDB	Industrial Development Board
LRB	Lease Revenue Bonds
RB	Revenue Bonds

Fair Value Hierarchy as of Period End

Various inputs are used in determining the fair value of investments and derivative financial instruments. These inputs to valuation techniques are categorized into a fair value 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 Trust 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 Trust'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. Investments classified within Level 3 have significant unobservable inputs used by the BlackRock Global Valuation Methodologies Committee (the Global Valuation Committee) in determining the price for Fair Valued Investments. Level 3 investments include equity or debt issued by privately held companies or funds. There may not be a secondary market, and/or there are a limited number of investors. Level 3 investments may also be adjusted to reflect illiquidity and/or non-transferability, with the amount of such discount estimated by the Global Valuation Committee in the absence of market information.

Changes in valuation techniques may result in transfers into or out of an assigned level within the hierarchy. In accordance with the Trust's policy, transfers between different levels of the fair value 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 investments and derivative financial instruments and is not necessarily an indication of the risks associated with investing in those securities. For information about the Trust's policy regarding valuation of investments and derivative financial instruments, refer to

the Trust's most recent financial statements as contained in its semi-annual report.

The following tables summarize the Trust's investments and derivative financial instruments categorized in the disclosure hierarchy:

	<i>Level 1</i>	<i>Level 2</i>	<i>Level 3</i>	<i>Total</i>
Assets:				
Investments:				
Long-Term Investments ^(a)	\$	\$ 939,878,642	\$	\$ 939,878,642
Derivative Financial Instruments ^(b)				
Assets:				
Interest rate contracts	\$ 213,121			\$ 213,121

^(a) See above Schedule of Investments for values in each state or political subdivision.

^(b) Derivative financial instruments are futures contracts which are valued at the unrealized appreciation (depreciation) on the instrument.

Schedule of Investments (unaudited) (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

November 30, 2017

(Percentages shown are based on Net Assets)

The Trust may hold assets and/or liabilities in which the fair value approximates the carrying amount for financial reporting purposes. As of period end, such assets and/or liabilities are categorized within the disclosure hierarchy as follows:

	<i>Level 1</i>	<i>Level 2</i>	<i>Level 3</i>	<i>Total</i>
Liabilities:				
TOB Trust Certificates	\$	\$ (123,070,585)	\$	\$ (123,070,585)
VRDP Shares at Liquidation Value		(274,600,000)		(274,600,000)
	\$	\$ (397,670,585)	\$	\$ (397,670,585)

During the period ended November 30, 2017, there were no transfers between levels.

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 22, 2018

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 22, 2018

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

Date: January 22, 2018