

BLACKROCK MUNIHOLDINGS INVESTMENT QUALITY FUND

Form N-Q

July 23, 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: 05/31/2018

Item 1 Schedule of Investments

Schedule of Investments (unaudited)

BlackRock MuniHoldings Investment Quality Fund (MFL)

May 31, 2018

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par</i>	<i>Value</i>
	<i>(000)</i>	
Municipal Bonds 130.7%		
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	\$ 11,454,591
6.13%, 06/01/19	4,980	5,194,289
City of Selma Alabama IDB, RB, Gulf Opportunity Zone, International Paper Co. Project, Series A, 5.38%, 12/01/35	1,745	1,931,471
		18,580,351
Arizona 1.7%		
County of Maricopa Arizona IDA, RB, Banner Health, Series A, 5.00%, 01/01/41	5,750	6,582,313
University of Arizona Board of Regents, Refunding RB, Series A, 5.00%, 06/01/40	2,300	2,606,797
		9,189,110
California 21.1%		
Anaheim California Union High School District, GO, Election of 2014, 4.00%, 08/01/42	4,000	4,200,240
California Educational Facilities Authority, RB, University of Southern California, Series A, 5.25%, 10/01/18 ^(a)	3,500	3,544,275
California Health Facilities Financing Authority, RB, Sutter Health, Series B, 6.00%, 08/15/20 ^(a)	5,370	5,871,880
City & County of San Francisco California Airports Commission, Refunding ARB, AMT, Series A:		
2nd, 5.50%, 05/01/28	3,330	3,790,339
2nd, 5.25%, 05/01/33	2,600	2,904,070
5.00%, 05/01/44	3,430	3,781,232
City of Manteca California Financing Authority, RB, Manteca Sewer (AGC):		
5.63%, 12/01/33	2,450	2,590,287
5.75%, 12/01/36	3,285	3,477,632
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	4,840,621
County of Sacramento California, ARB, Senior Series A (AGC), 5.50%, 07/01/18 ^(a)	5,600	5,617,920
Kern Community College District, GO, Safety, Repair & Improvement, Series C, 5.50%, 11/01/33	4,365	5,107,748
	<i>Par</i>	<i>Value</i>
	<i>(000)</i>	
<i>Security</i>		
California (continued)		

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Los Angeles County Metropolitan Transportation Authority, RB, Green Bonds, Series A, 5.00%, 07/01/37	\$ 2,790	\$ 3,320,686
Metropolitan Water District of Southern California, Refunding RB, Series A, 5.00%, 07/01/32	3,000	3,525,900
Regents of the University of California Medical Center Pooled Revenue, Refunding RB, Series J: 5.25%, 05/15/23 ^(a)	7,545	8,775,665
5.25%, 05/15/38	2,705	3,074,747
San Diego Public Facilities Financing Authority Water, Refunding RB, Series B (AGC), 5.38%, 08/01/19 ^(a)	2,000	2,089,340
San Marcos Schools Financing Authority, Refunding RB (AGM) 5.25%, 08/15/40	3,250	3,882,840
State of California, GO, Various Purposes (AGC), 5.50%, 11/01/39	15,000	15,796,050
State of California Public Works Board, LRB, Various Capital Projects, Series I: 5.50%, 11/01/30	4,500	5,213,385
5.50%, 11/01/31	2,615	3,026,680
5.50%, 11/01/33	2,000	2,307,180
State of California Public Works Board, RB, Department of Corrections & Rehabilitation, Series F, 5.25%, 09/01/33	3,240	3,685,306
Township of Washington California Health Care District, GO, Election of 2004, Series B, 5.50%, 08/01/40	1,685	1,959,267
University of California, Refunding RB, Series AR, 5.00%, 05/15/38	10,000	11,588,500
		113,971,790
Colorado 2.2%		
City & County of Denver Colorado Airport System, ARB, Series A, AMT: 5.50%, 11/15/28	2,700	3,064,419
5.50%, 11/15/30	1,040	1,173,650
5.50%, 11/15/31	1,250	1,407,288

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

May 31, 2018

(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	\$ 6,162,178
		11,807,535
District of Columbia 0.4%		
District of Columbia, Refunding RB, KIPP DC Issue, Series A, 5.00%, 07/01/37	2,000	2,231,900
Florida 8.0%		
City of Jacksonville Florida, Refunding RB, Series A, 5.25%, 10/01/33	1,250	1,417,675
County of Hillsborough Florida Aviation Authority, Refunding ARB, Tampa International Airport, Series A, AMT: 5.50%, 10/01/29	5,360	6,054,120
5.25%, 10/01/30	3,255	3,626,395
County of Lee Florida, Refunding ARB, Series A, AMT, 5.38%, 10/01/32	7,100	7,682,271
County of Lee Florida HFA, RB, S/F Housing, Multi-County Program, Series A-2, AMT (Ginnie Mae, Fannie Mae & Freddie Mac), 6.00%, 09/01/40	410	413,751
County of Manatee Florida HFA, RB, S/F Housing, Series A, AMT (Ginnie Mae, Fannie Mae & Freddie Mac), 5.90%, 09/01/40	190	193,369
County of Miami-Dade Florida, RB, Seaport Department: Series A, 5.38%, 10/01/33	3,145	3,524,727
Series B, AMT, 6.25%, 10/01/38	1,405	1,628,114
Series B, AMT, 6.00%, 10/01/42	1,885	2,152,331
County of Miami-Dade Florida, Refunding RB, Water & Sewer System, Series B, 5.25%, 10/01/29	2,870	3,259,574
County of Miami-Dade Florida Aviation, Refunding ARB, Series A, AMT, 5.00%, 10/01/31	5,465	5,944,335
Reedy Creek Florida Improvement District, GO, Series A, 5.25%, 06/01/32	3,225	3,672,856
South Miami Health Facilities Authority, Refunding RB, Baptist Health South Florida Obligated Group, 5.00%, 08/15/42	2,965	3,361,895
		42,931,413
Hawaii 2.0%		
State of Hawaii Airports System Revenue, ARB, Series A, AMT, 5.00%, 07/01/45	5,985	6,650,113
	<i>Par (000)</i>	<i>Value</i>
Hawaii (continued)		
State of Hawaii Airports System Revenue, COP, AMT: 5.25%, 08/01/25	\$ 1,350	\$ 1,511,919
5.25%, 08/01/26	2,500	2,785,850

10,947,882

Illinois 18.5%

City of Chicago Illinois Midway International Airport, Refunding ARB, 2nd Lien, Series A, AMT:		
5.50%, 01/01/30	6,500	7,245,615
5.50%, 01/01/32	6,275	6,963,493
City of Chicago Illinois Midway International Airport, Refunding GARB, 2nd Lien, Series A, AMT, 5.00%, 01/01/41	8,020	8,704,667
City of Chicago Illinois O Hare International Airport, GARB:		
3rd Lien, Series A, 5.75%, 01/01/21 ^(a)	6,210	6,789,890
3rd Lien, Series A, 5.75%, 01/01/39	1,185	1,285,381
3rd Lien, Series C, 6.50%, 01/01/21 ^(a)	16,800	18,660,936
Senior Lien, Series D, 5.25%, 01/01/42	2,630	3,052,851
City of Chicago Illinois Transit Authority, RB:		
Federal Transit Administration, Section 5309, Series A (AGC), 6.00%, 12/01/18 ^(a)	6,000	6,129,060
Sales Tax Receipts, 5.25%, 12/01/40	10,960	11,726,652
City of Chicago Illinois Transit Authority, Refunding RB, Federal Transit Administration, Section 5309 (AGM), 5.00%, 06/01/28	7,735	8,094,600
Illinois Finance Authority, RB, Carle Foundation, Series A, 6.00%, 08/15/41	4,000	4,409,280
Railsplitter Tobacco Settlement Authority, RB ^(a) :		
5.50%, 06/01/21	4,365	4,805,167
6.00%, 06/01/21	1,245	1,388,536
State of Illinois Finance Authority, RB, University of Chicago, Series B, 5.50%, 07/01/18 ^(a)	8,000	8,024,240
State of Illinois Toll Highway Authority, RB:		
Series B, 5.00%, 01/01/40	1,000	1,125,940

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

May 31, 2018

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
Illinois (continued)		
Series C, 5.00%, 01/01/37	\$ 1,250	\$ 1,386,338
		99,792,646
Indiana 4.2%		
Indiana Finance Authority, Refunding RB, Stadium Project, Series A, 5.25%, 02/01/37	3,130	3,630,800
Indiana Municipal Power Agency, Refunding RB, Series ^(a) : 5.25%, 07/01/23	1,500	1,730,220
5.25%, 07/01/23	1,500	1,730,220
Indianapolis Local Public Improvement Bond Bank, Refunding RB, Waterworks Project, Series A (AGC): 5.50%, 01/01/19 ^(a)	2,760	2,821,493
5.50%, 01/01/38	11,345	11,573,942
State of Indiana Finance Authority, RB, Private Activity Bond, Ohio River Bridges, Series A, AMT, 5.00%, 07/01/40	1,240	1,328,747
		22,815,422
Kansas 0.9%		
County of Wyandotte Kansas Unified School District, GO, Series A, 5.50%, 09/01/47	4,000	4,793,040
Louisiana 0.9%		
City of New Orleans Louisiana Aviation Board, Refunding GARB, Restructuring, Series A-2 (AGC), 6.00%, 01/01/19 ^(a)	720	738,094
Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A, 5.50%, 05/15/29	3,735	3,864,156
		4,602,250
Maryland 0.5%		
Maryland Stadium Authority, RB, Baltimore City Public School, 5.00%, 05/01/41	2,350	2,660,976
Massachusetts 1.2%		
Massachusetts Development Finance Agency, Refunding RB, Partners Healthcare System, 5.00%, 07/01/41	4,710	5,319,710
	<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	\$ 1,104,700
		6,424,410

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Michigan 3.9%

City of Detroit Michigan Water Supply System Revenue, RB, 2nd Lien, Series B (AGM): 6.25%, 07/01/19 ^(a)	6,310	6,607,516
6.25%, 07/01/36	10	10,440
Hudsonville Michigan Public Schools, GO, School Building & Site (Q-SBLF), 5.25%, 05/01/21 ^(a)	6,015	6,580,590
Michigan Finance Authority, Refunding RB, Henry Ford Health System, 5.00%, 11/15/41	1,525	1,706,384
Royal Oak Hospital Finance Authority Michigan, Refunding RB, William Beaumont Hospital, Series V, 8.25%, 09/01/18 ^(a)	5,780	5,872,191
		20,777,121

Minnesota 1.6%

City of Minneapolis Minnesota, Refunding RB, Fairview Health Services, Series B (AGC), 6.50%, 11/15/38	8,375	8,558,161
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Mississippi 2.8%

Mississippi Development Bank, RB, Jackson Water & Sewer System Project (AGM): 6.88%, 12/01/40	6,405	7,764,974
Special Obligation, 6.75%, 12/01/31	3,775	4,574,054
Special Obligation, 6.75%, 12/01/33	2,350	2,847,424
		15,186,452

Nevada 2.2%

County of Clark Nevada, ARB, Las Vegas-McCarran International Airport, Series A (AGM), 5.25%, 07/01/39	11,175	11,729,839
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New Jersey 8.8%

New Jersey EDA, RB, Goethals Bridge Replacement Project, AMT, Private Activity Bond: 5.38%, 01/01/43	7,000	7,651,910
(AGM), 5.00%, 01/01/31	2,425	2,684,039
New Jersey EDA, Refunding RB, Series B, 5.50%, 06/15/30	2,330	2,663,703

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

May 31, 2018

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
New Jersey (continued)		
New Jersey Health Care Facilities Financing Authority, RB, Virtua Health, Series A (AGC), 5.50%, 07/01/38	\$ 6,500	\$ 6,754,085
New Jersey Higher Education Student Assistance Authority, Refunding RB, Series 1, AMT, 5.75%, 12/01/28	2,695	2,895,427
New Jersey Transportation Trust Fund Authority, RB, Transportation System: Series A, 5.50%, 06/15/41	5,410	5,666,109
Series AA, 5.50%, 06/15/39	8,175	8,774,881
State of New Jersey, GO, 4.00%, 06/01/29	10,000	10,329,000
		47,419,154
New York 12.3%		
City of New York New York Municipal Water Finance Authority, Refunding RB, Water & Sewer System, 2nd General Resolution, Series EE, 5.38%, 06/15/43	3,475	3,768,360
City of New York New York Water & Sewer System, Refunding RB, 2nd General Resolution: Fiscal 2009, Series EE, 5.25%, 06/15/40	7,500	7,752,000
Series FF-2, 5.50%, 06/15/40	4,000	4,149,160
Metropolitan Transportation Authority, RB: Series A, 5.25%, 11/15/21 ^(a)	4,000	4,450,720
Series A-1, 5.25%, 11/15/39	4,490	5,073,610
Metropolitan Transportation Authority, Refunding RB, Series B, 5.00%, 11/15/37	6,140	6,981,487
New York State Dormitory Authority, RB, Bid Group 3, Series A, 5.00%, 03/15/42	6,235	7,296,446
Port Authority of New York & New Jersey, Refunding ARB, Consolidated, 166th Series, 5.25%, 07/15/36	10,000	10,794,200
Port Authority of New York & New Jersey, Refunding RB, Consolidated, 205th Series: 5.25%, 11/15/39	6,000	7,152,300
5.25%, 05/15/42	900	1,070,388
Triborough Bridge & Tunnel Authority, Refunding RB, General, Series B: 5.00%, 11/15/37	1,070	1,245,031
<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
New York (continued)		
5.00%, 11/15/38	\$ 5,660	\$ 6,580,995
		66,314,697
Ohio 1.5%		

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State of Ohio Turnpike Commission, RB, Junior Lien, Infrastructure Projects, Series A-1:		
5.25%, 02/15/31	5,145	5,748,817
5.25%, 02/15/32	2,250	2,508,795
		8,257,612
Pennsylvania 5.7%		
Pennsylvania Turnpike Commission, RB:		
Series A, 5.25%, 12/01/44	5,000	5,936,600
Sub-Series A, 5.50%, 12/01/46	18,570	21,395,797
Township of Bristol Pennsylvania School District, GO, 5.25%, 06/01/37	3,000	3,325,440
		30,657,837
South Carolina 6.8%		
County of Charleston South Carolina, RB, Special Source, 5.25%, 12/01/38	6,735	7,724,573
County of Charleston South Carolina Airport District, ARB, Series A, AMT:		
5.25%, 07/01/25	4,490	5,086,452
5.50%, 07/01/38	3,000	3,341,580
6.00%, 07/01/38	5,270	5,993,044
5.50%, 07/01/41	4,170	4,638,583
State of South Carolina Ports Authority, RB, AMT, 5.25%, 07/01/50	3,445	3,865,703
State of South Carolina Public Service Authority, Refunding RB, Series E, 5.25%, 12/01/55	5,500	5,985,760
		36,635,695
Texas 15.9%		
City of Beaumont Texas, GO, Certificates of Obligation, 5.25%, 03/01/37	4,190	4,686,138
City of Houston Texas Combined Utility System Revenue, Refunding RB, Combined 1st Lien, Series A (AGC):		
6.00%, 05/15/19 ^(a)	12,030	12,505,786
6.00%, 05/15/19 ^(a)	8,940	9,293,577
6.00%, 11/15/35	670	697,014
6.00%, 11/15/36	495	514,958
5.38%, 11/15/38	265	273,602

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

May 31, 2018

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
Texas (continued)		
County of Tarrant Texas Cultural Education Facilities Finance Corp., Refunding RB, Christus Health, Series A (AGC), 6.50%, 07/01/37	\$ 1,450	\$ 1,487,773
Dallas-Fort Worth Texas International Airport, ARB, Joint Improvement, AMT: Series A, 5.00%, 11/01/38	5,580	5,914,688
Series H, 5.00%, 11/01/37	4,575	4,926,177
Lower Colorado River Authority, Refunding RB, 5.50%, 05/15/33	3,735	4,260,813
North Texas Tollway Authority, Refunding RB, 1st Tier ^(a) : (AGM), 6.00%, 01/01/21	5,555	6,115,777
Series K-1 (AGC), 5.75%, 01/01/19	12,150	12,434,432
Red River Texas Education Financing Corp., RB, Texas Christian University Project, 5.25%, 03/15/38	7,170	8,022,083
State of Texas, GO, Water Financial Assistance, Series D, 5.00%, 05/15/40	8,000	9,034,000
Texas Water Development Board, RB, State Water Implementation Revenue, 5.25%, 10/15/46	4,780	5,604,885
		85,771,703
Utah 1.6%		
County of Utah Utah, RB, IHC Health Services, Inc., Series B, 5.00%, 05/15/46	7,500	8,508,150
Virginia 1.2%		
City of Lexington Virginia IDA, RB, Washington & Lee University, 5.00%, 01/01/43	1,750	1,903,073
State of Virginia Public School Authority, RB, Fluvanna County School Financing, 6.50%, 12/01/18 ^(a)	4,300	4,402,985
		6,306,058
Washington 1.4%		
City of Seattle Washington Municipal Light & Power, Refunding RB, Series A, 5.25%, 02/01/21 ^(a)	4,200	4,561,788
State of Washington, GO, Series C, 5.00%, 02/01/41	2,500	2,914,175
		7,475,963
Total Municipal Bonds 130.7% (Cost \$667,768,769)		704,347,167

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
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Municipal Bonds Transferred to Tender Option Bond Trusts^(b)**Alabama 8.3%**

City of Birmingham Alabama Special Care Facilities Financing Authority, Refunding RB,
Senior Credit:

Ascension Health, Series C, 5.00%, 11/15/46	\$ 11,920	\$ 13,432,708
Ascension Group, Series B, 5.00%, 11/15/46	27,798	31,326,069
		44,758,777

California 0.5%

Los Angeles California Unified School District, GO, Series I, 5.00%, 01/01/34
 2,400 | 2,480,412 |

Florida 2.0%

County of Hillsborough Florida Aviation Authority, ARB, Tampa International Airport,
Series A, AMT (AGC), 5.50%, 10/01/38
 10,657 | 10,768,956 |

Massachusetts 2.9%

Commonwealth of Massachusetts, GO, Series G, 4.00%, 09/01/42
 15,000 | 15,553,900 |

Nevada 2.4%

County of Clark Nevada Water Reclamation District, GO (a):
Limited Tax, 6.00%, 07/01/18
 8,000 | 8,027,240 |

Series B, 5.50%, 07/01/19
 5,008 | 5,203,591 |

13,230,831

New Jersey 3.3%

New Jersey Housing & Mortgage Finance Agency, RB, S/F Housing, Series CC,
5.25%, 10/01/29
 6,558 | 6,663,097 |

New Jersey Transportation Trust Fund Authority, RB, Transportation System:
Series A (AMBAC) (AGM), 5.00%, 12/15/32
 8,000 | 8,016,240 |

Series B, 5.25%, 06/15/36^(c) 2,961 | 3,091,063 |

17,770,400

New York 12.1%

City of New York Transitional Finance Authority, BARB, Fiscal 2009, Series S-3,
5.25%, 01/15/39
 5,619 | 5,730,937 |

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 | 5,177,651 |

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

May 31, 2018

(Percentages shown are based on Net Assets)

<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
New York (continued)		
Hudson Yards Infrastructure Corp., RB, Fiscal 2012, Series A, 5.75%, 02/15/47 ^(c)	\$ 9,249	\$ 10,114,153
New York City Transitional Finance Authority Future Tax Secured Revenue, RB, Fiscal 2017, Sub-Series B-1, 5.00%, 08/01/40	5,000	5,710,950
New York Liberty Development Corp., ARB, 1 World Trade Center Port Authority Consolidated Bonds, 5.25%, 12/15/43	13,950	15,275,185
New York Liberty Development Corp., Refunding RB, 4 World Trade Center Project, 5.75%, 11/15/51 ^(c)	8,200	9,089,040
New York State Dormitory Authority, ERB, Personal Income Tax, Series B, 5.25%, 03/15/19 ^(a)	13,500	13,875,975
		64,973,891
Texas 7.5%		
City of San Antonio Texas Public Service Board, Refunding RB, Series A, 5.25%, 02/01/19 ^{(a)(c)}	12,027	12,302,592
North Texas Tollway Authority, RB, Special Projects System, Series A, 5.50%, 09/01/21 ^(a)	9,640	10,673,986
State of Texas, GO, Texas Transportation Commission, Highway Improvement, 5.00%, 04/01/43	15,550	17,727,311
		40,703,889
<i>Security</i>	<i>Par (000)</i>	<i>Value</i>
Utah 1.2%		
City of Riverton Utah, RB, IHC Health Services, Inc., 5.00%, 08/15/41	\$ 6,373	\$ 6,611,039
Total Municipal Bonds Transferred to Tender Option Bond Trusts 40.2%		
(Cost \$214,350,355)		216,852,095
Total Long-Term Investments 170.9%		
(Cost \$882,119,124)		921,199,262
Short-Term Securities 1.1%	<i>Shares</i>	
BlackRock Liquidity Funds, MuniCash, Institutional Class, 0.92% ^{(d)(e)}	5,795,197	5,795,776

Total Short-Term Securities	1.1%	
(Cost \$5,795,776)		5,795,776
Total Investments	172.0%	
(Cost \$887,914,900)		926,995,038
Liabilities in Excess of Other Assets	(0.1)%	(614,641)
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable	(21.0)%	(113,325,055)
VRDP Shares at Liquidation Value, Net of Deferred Offering Costs	(50.9)%	(274,208,879)
Net Assets Applicable to Common		
Shares	100.0%	\$ 538,846,463

- (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 agreements, which expire between September 6, 2018 to November 15, 2019, is \$19,874,974.
- (d) Annualized 7-day yield as of period end.

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

May 31, 2018

(e) During the period ended May 31, 2018, 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>Shares Held at 08/31/17</i>	<i>Net Activity</i>	<i>Shares Held at 05/31/18</i>	<i>Value at 05/31/18</i>	<i>Income</i>	<i>Net Realized Gain (Loss)^(a)</i>	<i>Change in Unrealized Appreciation (Depreciation)</i>
<i>Affiliated BlackRock Liquidity Funds, MuniCash, Institutional Class</i>		5,795,197	5,795,197	\$ 5,795,776	\$ 17,491	\$ (270)	\$

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

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>
<i>Short Contracts:</i>				
10-Year U.S. Treasury Note	143	09/19/18	\$ 17,223	\$ (127,193)
Long U.S. Treasury Bond	118	09/19/18	17,125	(323,728)
5-Year U.S. Treasury Note	84	09/28/18	9,567	(46,043)
				\$ (496,964)

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
IDA Industrial Development Authority
IDB Industrial Development Board
LRB Lease Revenue Bonds
RB Revenue Bonds
S/F Single-Family

Schedule of Investments (unaudited) (continued)

BlackRock MuniHoldings Investment Quality Fund (MFL)

May 31, 2018

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.

As of May 31, 2018, 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)	\$	\$ 921,199,262	\$	\$ 921,199,262
Short-Term Securities	5,795,776			5,795,776
	\$ 5,795,776	\$ 921,199,262	\$	\$ 926,995,038
Derivative Financial Instruments ^(b)				
Liabilities:				
Interest rate contracts	\$ (496,964)	\$	\$	\$ (496,964)

^(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.

The Trust may hold assets and/or liabilities in which the fair value approximates the carrying 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	\$	\$ (112,905,728)	\$	\$ (112,905,728)
VRDP Shares at Liquidation Value		(274,600,000)		(274,600,000)
	\$	\$ (387,505,728)	\$	\$ (387,505,728)

During the period ended May 31, 2018, 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: July 19, 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: July 19, 2018

By: /s/ Neal J. Andrews
Neal J. Andrews
Chief Financial Officer (principal financial officer) of

BlackRock MuniHoldings Investment Quality Fund

Date: July 19, 2018