

BLACKROCK MUNIHOLDINGS FUND, INC.
Form N-Q
March 23, 2017

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: 811-08081

Name of Fund: BlackRock MuniHoldings Fund, Inc. (MHD)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: John M. Perlowski, Chief Executive Officer, BlackRock

MuniHoldings Fund, Inc., 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: 04/30/2017

Date of reporting period: 01/31/2017

Item 1 Schedule of Investments

Schedule of Investments January 31, 2017 (Unaudited)

BlackRock MuniHoldings Fund, Inc. (MHD)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
Alabama 4.0%		
County of Jefferson Alabama, RB, Limited Obligation School, Series A, 5.00%, 1/01/24	\$ 4,550	\$ 4,568,518
County of Jefferson Alabama Sewer, Refunding RB:		
Senior Lien, Series A (AGM), 5.00%, 10/01/44	570	631,304
Senior Lien, Series A (AGM), 5.25%, 10/01/48	1,090	1,224,026
Sub-Lien, Series D, 6.00%, 10/01/42	1,000	1,136,610
Sub-Lien, Series D, 7.00%, 10/01/51	1,545	1,865,418
		9,425,876
Alaska 0.6%		
Northern Tobacco Securitization Corp., Refunding RB, Tobacco Settlement, Asset-Backed, Series A, 5.00%, 6/01/46	1,660	1,397,836
Arizona 2.6%		
City of Phoenix Arizona IDA, RB, Legacy Traditional Schools Projects, Series A, 5.00%, 7/01/46 (a)	1,230	1,172,190
Salt Verde Financial Corp., RB, Senior:		
5.00%, 12/01/32	2,000	2,242,840
5.00%, 12/01/37	2,360	2,666,186
		6,081,216
California 11.0%		
California Health Facilities Financing Authority, RB:		
St. Joseph Health System, Series A, 5.75%, 7/01/39	1,530	1,662,406
Sutter Health, Series B, 6.00%, 8/15/42	2,200	2,505,668
California Health Facilities Financing Authority, Refunding RB, St. Joseph Health System, Series A, 5.00%, 7/01/33		
	875	976,972
California Municipal Finance Authority, RB, Senior, Caritas Affordable Housing, Inc. Projects, S/F Housing, Series A:		
5.25%, 8/15/39	105	114,826
5.25%, 8/15/49	265	287,989
California Pollution Control Financing Authority, RB, Poseidon Resources (Channel Side) LP Desalination Project, AMT, 5.00%, 11/21/45 (a)		
	1,025	1,043,440
	Par (000)	Value
Municipal Bonds		
California (continued)		
California Statewide Communities Development Authority, RB, Series A:		
John Muir Health, 5.13%, 7/01/39	\$ 1,510	\$ 1,609,690
Loma Linda University Medical Center, 5.00%, 12/01/46 (a)	460	470,299
City of Los Angeles California Department of Airports, Refunding ARB, Los Angeles International Airport, Series A, 5.25%, 5/15/39		
	555	600,910
City of Stockton California Public Financing Authority, RB, Delta Water Supply Project, Series A, 6.25%, 10/01/38		
	255	302,481
Montebello Unified School District, GO, CAB (NPFGC), 0.00%, 8/01/22 (b)	2,405	2,080,349
San Diego Unified School District California, GO, CAB, Election of 2008, Series A, 0.00%, 7/01/29 (b)		
	3,475	2,201,586
State of California, GO, Various Purposes, 6.50%, 4/01/33		
	8,370	9,297,731
State of California Public Works Board, LRB, Various Capital Projects:		
Series I, 5.00%, 11/01/38	550	615,313
Sub-Series I-1, 6.38%, 11/01/19 (c)	820	934,997
Tobacco Securitization Authority of Southern California, Refunding RB, Tobacco Settlement, Asset-Backed, Senior Series A-1, 4.75%, 6/01/25		
	1,400	1,413,972
		26,118,629
Colorado 2.4%		
Colorado Educational & Cultural Facilities Authority, RB, Charter School, Colorado Springs, 5.50%, 7/01/40		
	1,455	1,525,902
County of Adams Colorado, COP, Refunding, 4.00%, 12/01/40		
	545	553,502
Regional Transportation District, COP, Refunding, Series A, 5.38%, 6/01/31		
	710	780,468

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Regional Transportation District, RB, Denver Transit Partners Eagle P3 Project, 6.00%, 1/15/34	1,425	1,580,524
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BLACKROCK MUNIHOLDINGS FUND, INC.

JANUARY 31, 2017

1

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par	
	(000)	Value
Municipal Bonds		
Colorado (continued)		
University of Colorado, RB, Series A, 5.38%, 6/01/19 (c)	\$ 1,250	\$ 1,368,038
		5,808,434
Connecticut 2.8%		
Connecticut State Health & Educational Facility Authority, RB, Yale University Issue:		
Series T-1, 4.70%, 7/01/29	3,185	3,233,571
Series X-3, 4.85%, 7/01/37	3,265	3,314,204
		6,547,775
Delaware 1.8%		
County of Sussex Delaware, RB, NRG Energy, Inc., Indian River Power LLC Project, 6.00%, 10/01/40		
	790	849,234
Delaware Transportation Authority, RB, 5.00%, 6/01/55	840	911,383
State of Delaware EDA, RB, Exempt Facilities, Indian River Power LLC Project, 5.38%, 10/01/45	2,430	2,515,099
		4,275,716
District of Columbia 4.6%		
District of Columbia, Refunding RB, Georgetown University:		
5.00%, 4/01/35	315	356,555
5.00%, 4/01/36	315	355,402
5.00%, 4/01/42	365	409,818
District of Columbia, Tax Allocation Bonds, City Market at O Street Project, 5.13%, 6/01/41	1,520	1,675,785
Metropolitan Washington Airports Authority, Refunding RB, Dulles Toll Road:		
1st Senior Lien, Series A, 5.00%, 10/01/39	505	541,345
1st Senior Lien, Series A, 5.25%, 10/01/44	1,470	1,583,778
CAB, 2nd Senior Lien, Series B (AGC), 0.00%, 10/01/35 (b)	13,485	5,974,529
		10,897,212
Florida 5.1%		
City of Clearwater Florida Water & Sewer Revenue, RB, Series A, 5.25%, 12/01/39 (c)		
	2,375	2,636,606
County of Broward Florida Water & Sewer Utility, Refunding RB, Series A, 5.25%, 10/01/18 (c)	750	801,315
Municipal Bonds		
Florida (continued)		
County of Collier Florida Health Facilities Authority, Refunding RB, Series A, 5.00%, 5/01/45	\$ 960	\$ 1,032,422
County of Miami-Dade Florida Aviation, Refunding ARB, Miami International Airport, Series A-1, 5.38%, 10/01/41	2,620	2,885,878
Mid-Bay Bridge Authority, RB, Springing Lien, Series A, 7.25%, 10/01/21 (c)	2,095	2,613,366
Palm Coast Park Community Development District, Special Assessment Bonds, 5.70%, 5/01/37	590	556,110
Village Community Development District No.10, Special Assessment Bonds, 5.13%, 5/01/43	1,455	1,546,607
		12,072,304
Georgia 1.5%		
County of Gainesville Georgia & Hall Hospital Authority, Refunding RB, Northeast Georgia Health System, Inc. Project, Series A, 5.50%, 8/15/54		
	370	424,786
DeKalb Private Hospital Authority, Refunding RB, Children s Healthcare, 5.25%, 11/15/39	585	632,327
Metropolitan Atlanta Rapid Transit Authority, RB, Sales Tax, 3rd Indenture, Series A, 5.00%, 7/01/39	2,410	2,591,569
		3,648,682
Hawaii 0.4%		
State of Hawaii Harbor System, RB, Series A, 5.25%, 7/01/30	945	1,032,337
Idaho 0.3%		
Idaho Health Facilities Authority, RB, Trinity Health Credit Group, Series 2017, 5.00%, 12/01/46	540	600,782
Illinois 15.6%		
City of Chicago Illinois, GO, Project, 5.00%, 1/01/34	1,265	1,186,595

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City of Chicago Illinois, GO, Refunding, Series A:

Project, 5.25%, 1/01/32	2,195	2,109,307
5.00%, 1/01/35	2,000	1,867,420

2

BLACKROCK MUNIHOLDINGS FUND, INC.

JANUARY 31, 2017

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par	
	(000)	Value
Municipal Bonds		
Illinois (continued)		
City of Chicago Illinois, Special Assessment Bonds, Lake Shore East, 6.75%, 12/01/32	\$ 894	\$ 893,893
City of Chicago Illinois O Hare International Airport, GARB, 3rd Lien:		
Series A, 5.75%, 1/01/39	2,000	2,244,220
Series C, 6.50%, 1/01/21 (c)	4,055	4,823,382
City of Chicago Illinois Transit Authority, RB, Sales Tax Receipts, 5.25%, 12/01/40	730	778,289
City of Chicago Illinois Waterworks, Refunding RB, 2nd Lien Project, 5.00%, 11/01/42	1,000	1,061,400
County of Cook Illinois Community College District No. 508, GO, City College of Chicago, 5.50%, 12/01/38	560	600,757
Illinois Finance Authority, Refunding RB:		
Central Dupage Health, Series B, 5.50%, 11/01/39	1,115	1,228,329
Presence Health Network, Series C, 4.00%, 2/15/41	1,035	859,454
Illinois State Toll Highway Authority, RB:		
Senior, Series C, 5.00%, 1/01/36	1,870	2,054,307
Senior, Series C, 5.00%, 1/01/37	2,000	2,191,340
Series A, 5.00%, 1/01/38	415	456,139
Metropolitan Pier & Exposition Authority, Refunding RB, McCormick Place Expansion Project:		
CAB, Series B (AGM), 0.00%, 6/15/47 (b)	13,220	2,707,191
Series B (AGM), 5.00%, 6/15/50	3,070	3,202,225
Series B-2, 5.00%, 6/15/50	1,740	1,753,850
Railsplitter Tobacco Settlement Authority, RB:		
5.50%, 6/01/23	315	355,033
6.00%, 6/01/28	800	909,528
State of Illinois, GO:		
5.00%, 2/01/39	1,100	1,092,740
Series A, 5.00%, 4/01/38	2,625	2,601,139
State of Illinois, RB, Build Illinois, Series B, 5.25%, 6/15/19 (c)	440	480,766
University of Illinois, RB, Auxiliary Facilities System, Series A: 5.00%, 4/01/39	580	625,165
	Par	Value
	(000)	Value
Municipal Bonds		
Illinois (continued)		
University of Illinois, RB, Auxiliary Facilities System, Series A (continued): 5.00%, 4/01/44	\$ 705	\$ 757,149
		36,839,618
Indiana 4.4%		
City of Valparaiso Indiana, RB, Exempt Facilities, Pratt Paper LLC Project, AMT:		
6.75%, 1/01/34	560	660,374
7.00%, 1/01/44	1,355	1,613,778
Indiana Finance Authority, RB, Series A:		
CWA Authority Project, 1st Lien, 5.25%, 10/01/38	2,275	2,557,691
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/44	310	320,816
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/48	1,030	1,048,674
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.25%, 1/01/51	290	299,237
Sisters of St. Francis Health Services, 5.25%, 11/01/39	585	631,039
Indiana Finance Authority, Refunding RB, Parkview Health System, Series A, 5.75%, 5/01/31	1,300	1,406,392
Indiana Municipal Power Agency, RB, Series B, 6.00%, 1/01/19 (c)	775	845,889
Indianapolis Local Public Improvement Bond Bank, RB, Series A, 5.00%, 1/15/40	880	975,322
		10,359,212

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Iowa 2.1%

Iowa Finance Authority, Refunding RB, Midwestern Disaster Area, Iowa Fertilizer Co. Project:

5.00%, 12/01/19	330	331,369
5.50%, 12/01/22	1,630	1,638,150
5.25%, 12/01/25	320	319,418
5.88%, 12/01/26 (a)	285	288,004

BLACKROCK MUNIHOLDINGS FUND, INC.

JANUARY 31, 2017

3

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par (000)	Value
Municipal Bonds		
Iowa (continued)		
Iowa Student Loan Liquidity Corp., Refunding RB, Student Loan, Senior Series A-1, AMT, 5.15%, 12/01/22	\$ 735	\$ 777,850
Iowa Tobacco Settlement Authority, Refunding RB, Asset-Backed, Series C, 5.63%, 6/01/46	1,730	1,686,456
		5,041,247
Kansas 0.7%		
Kansas Development Finance Authority, Refunding RB, Adventist Health, Series C, 5.75%, 11/15/38	1,520	1,672,076
Kentucky 0.6%		
Kentucky Economic Development Finance Authority, RB, Catholic Health Initiatives, Series A, 5.25%, 1/01/45	705	746,807
Kentucky Public Transportation Infrastructure Authority, RB, Downtown Crossing Project, Convertible CAB, 1st Tier, Series C, 0.00%, 7/01/43 (d)	865	698,548
		1,445,355
Louisiana 3.5%		
East Baton Rouge Sewerage Commission, RB, Series A, 5.25%, 2/01/19 (c)	570	615,754
Louisiana Local Government Environmental Facilities & Community Development Authority, RB, Westlake Chemical Corp. Project, 6.75%, 11/01/32	3,500	3,608,850
New Orleans Aviation Board, RB, Passenger Facility Charge, Series A, 5.25%, 1/01/41	430	458,053
Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A:		
5.50%, 5/15/30	700	749,147
5.25%, 5/15/31	600	643,422
5.25%, 5/15/32	765	828,319
5.25%, 5/15/33	830	894,541
	Par (000)	Value
Municipal Bonds		
Louisiana (continued)		
Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A (continued):		
5.25%, 5/15/35	\$ 350	\$ 378,885
		8,176,971
Maine 0.1%		
Maine Health & Higher Educational Facilities Authority, RB, Series A, 5.00%, 7/01/39	210	223,969
Maryland 1.3%		
Maryland EDC, RB, Transportation Facilities Project, Series A, 5.75%, 6/01/35	300	322,320
Maryland EDC, Refunding RB, CNX Marine Terminals, Inc., 5.75%, 9/01/25	530	522,962
Maryland Health & Higher Educational Facilities Authority, RB, Trinity Health Credit Group, Series 2017, 5.00%, 12/01/46	305	338,501
Maryland Health & Higher Educational Facilities Authority, Refunding RB, Charlestown Community Project, 6.25%, 1/01/21 (c)	1,520	1,791,077
		2,974,860
Massachusetts 2.1%		
Commonwealth of Massachusetts, GO, Series E, 3.00%, 4/01/44	2,035	1,716,441
Massachusetts Development Finance Agency, Refunding RB:		
Boston University, Series P, 5.45%, 5/15/59	1,165	1,363,458
Covanta Energy Project, Series C, AMT, 5.25%, 11/01/42 (a)	1,575	1,581,820
Massachusetts Health & Educational Facilities Authority, Refunding RB, Partners Healthcare System, Series J1, 5.00%, 7/01/39	255	273,773
		4,935,492
Michigan 3.5%		
City of Detroit Michigan Sewage Disposal System, Refunding RB, Senior Lien, Series A, 5.25%, 7/01/39	3,085	3,325,506

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par	
	(000)	Value
Municipal Bonds		
Michigan (continued)		
Kalamazoo Hospital Finance Authority, Refunding RB, Bronson Methodist Hospital: 5.50%, 5/15/20 (c)	\$ 530	\$ 599,425
5.50%, 5/15/36	425	463,594
Michigan Finance Authority, Refunding RB:		
Detroit Water & Sewage Department Project, Senior Lien, Series C-1, 5.00%, 7/01/44	630	668,575
Henry Ford Health System, 4.00%, 11/15/46	1,040	994,552
Michigan State Hospital Finance Authority, Refunding RB, Henry Ford Health System, 5.75%, 11/15/19 (c)	2,105	2,355,011
		8,406,663
Minnesota 1.2%		
City of Minneapolis Minnesota, Refunding RB, Fairview Health Services, Series A, 6.75%, 11/15/18 (c)	2,135	2,346,450
City of Rochester Minnesota Electric Utility Revenue, Refunding RB, Series A, 5.00%, 12/01/47 (e)	510	577,963
		2,924,413
Mississippi 0.3%		
University of Southern Mississippi, RB, Campus Facilities Improvements Project, 5.38%, 9/01/19 (c)	675	744,761
Missouri 0.2%		
Bi-State Development Agency of the Missouri-Illinois Metropolitan District, Refunding RB, Combined Lien, Series A, 5.00%, 10/01/44	175	192,533
State of Missouri Health & Educational Facilities Authority, Refunding RB, St. Louis College of Pharmacy Project, 5.50%, 5/01/43	175	188,776
		381,309
Nebraska 1.0%		
Central Plains Energy Project Nebraska, RB, Gas Project No. 3, 5.25%, 9/01/37	575	623,191
	Par	
	(000)	Value
Municipal Bonds		
Nebraska (continued)		
County of Sarpy Nebraska Hospital Authority No. 1, Refunding RB, Nebraska Medicine, 4.00%, 5/15/51	\$ 1,755	\$ 1,710,107
		2,333,298
New Hampshire 1.4%		
New Hampshire Health & Education Facilities Authority, Refunding RB, Dartmouth-Hitchcock, 6.00%, 8/01/38	3,035	3,314,038
New Jersey 6.6%		
Casino Reinvestment Development Authority, Refunding RB:		
5.25%, 11/01/39	735	730,112
5.25%, 11/01/44	1,095	1,076,057
County of Essex New Jersey Improvement Authority, RB, AMT, 5.25%, 7/01/45 (a)	775	763,150
New Jersey EDA, RB, Continental Airlines, Inc. Project, AMT:		
5.13%, 9/15/23	1,410	1,489,256
5.25%, 9/15/29	1,365	1,436,430
New Jersey EDA, Refunding, Special Assessment Bonds, Kapkowski Road Landfill Project, 5.75%, 4/01/31	1,550	1,687,299
New Jersey State Turnpike Authority, RB:		
Series A, 5.00%, 1/01/43	1,925	2,112,071
Series E, 5.00%, 1/01/45	1,875	2,066,588
New Jersey Transportation Trust Fund Authority, RB:		
Transportation Program, Series AA, 5.00%, 6/15/44	895	887,035
Transportation System, Series A, 5.50%, 6/15/41	1,575	1,608,579
Transportation System, Series B, 5.25%, 6/15/36	1,705	1,732,144

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		15,588,721
New York 7.3%		
City of New York New York Transitional Finance Authority, RB, Fiscal 2012, Sub-Series E-1, 5.00%, 2/01/42	310	346,524
Counties of New York Tobacco Trust IV, Refunding RB, Settlement Pass-Through Turbo, Series A, 6.25%, 6/01/41 (a)	1,300	1,347,320

BLACKROCK MUNIHOLDINGS FUND, INC.

JANUARY 31, 2017

5

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par	
	(000)	Value
Municipal Bonds		
New York (continued)		
County of Dutchess New York IDA, Refunding RB, Bard College Civic Facility, Series A-1, 5.00%, 8/01/46	\$ 1,800	\$ 1,515,510
County of Westchester New York Healthcare Corp., RB, Senior Lien, Series A, 5.00%, 11/01/44	237	250,207
Erie Tobacco Asset Securitization Corp., Refunding RB, Asset-Backed, Series A, 5.00%, 6/01/45	1,405	1,332,010
Long Island Power Authority, Refunding RB, Electric System, Series A, 5.75%, 4/01/39	1,450	1,559,736
Metropolitan Transportation Authority, RB, Series B, 5.25%, 11/15/38	1,715	1,949,029
Metropolitan Transportation Authority, Refunding RB, Dedicated Tax Fund, Series B, 5.00%, 11/15/34	1,740	1,895,852
Metropolitan Transportation Authority Hudson Rail Yards Trust Obligations, Refunding RB, Series A, 5.00%, 11/15/56	765	819,376
New York Liberty Development Corp., Refunding RB:		
2nd Priority, Bank of America Tower at One Bryant Park Project, Class 3, 6.38%, 7/15/49	850	926,517
3 World Trade Center Project, Class 1, 5.00%, 11/15/44 (a)	2,275	2,369,367
3 World Trade Center Project, Class 2, 5.15%, 11/15/34 (a)	245	260,611
3 World Trade Center Project, Class 2, 5.38%, 11/15/40 (a)	605	650,357
Port Authority of New York & New Jersey, ARB, Special Project, JFK International Air Terminal LLC Project, Series 8: 6.00%, 12/01/36	900	1,015,056
	Par	
	(000)	Value
Municipal Bonds		
New York (continued)		
Port Authority of New York & New Jersey, ARB, Special Project, JFK International Air Terminal LLC Project, Series 8 (continued): 6.00%, 12/01/42	\$ 875	\$ 984,375
		17,221,847
North Carolina 0.6%		
North Carolina Medical Care Commission, RB, Health Care Facilities, Duke University Health System, Series A, 5.00%, 6/01/19 (c)	970	1,054,429
North Carolina Medical Care Commission, Refunding RB, 1st Mortgage, Retirement Facilities Whitestone Project, Series A, 7.75%, 3/01/41	415	456,898
		1,511,327
Ohio 0.6%		
County of Franklin Ohio, RB:		
Health Care Facilities Improvement, OPRS Communities Obligation Group, Series A, 6.13%, 7/01/40	470	515,552
Trinity Health Credit Group, Series 2017, 5.00%, 12/01/46	290	320,279
State of Ohio, RB, Portsmouth Bypass Project, AMT, 5.00%, 6/30/53	580	609,232
		1,445,063
Oklahoma 0.3%		
County of Epworth Oklahoma Finance Authority, Refunding RB, Epworth Villa Project, Series A, 5.13%, 4/01/42	825	798,320
Pennsylvania 3.1%		
City of Philadelphia Pennsylvania Hospitals & Higher Education Facilities Authority, RB, Temple University Health System, Series A, 5.63%, 7/01/42	460	490,208
Pennsylvania Economic Development Financing Authority, RB:		
American Water Co. Project, 6.20%, 4/01/39	2,520	2,748,060
Pennsylvania Bridge Finco LP, AMT, 5.00%, 6/30/42	2,015	2,126,409

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par	
	(000)	Value
Municipal Bonds		
Pennsylvania (continued)		
Pennsylvania Economic Development Financing Authority, Refunding RB, National Gypsum Co., AMT, 5.50%, 11/01/44	\$ 1,105	\$ 1,165,455
Pennsylvania Turnpike Commission, RB: Series A, 5.00%, 12/01/44	795	870,342
		7,400,474
Rhode Island 2.1%		
Tobacco Settlement Financing Corp., Refunding RB:		
Series A, 5.00%, 6/01/35	580	607,324
Series B, 4.50%, 6/01/45	1,900	1,795,253
Series B, 5.00%, 6/01/50	2,605	2,610,106
		5,012,683
South Carolina 3.7%		
State of South Carolina Ports Authority, RB:		
5.25%, 7/01/40	2,285	2,490,696
AMT, 5.25%, 7/01/55	925	1,000,517
State of South Carolina Public Service Authority, RB, Santee Cooper, Series A, 5.50%, 12/01/54	2,385	2,686,106
State of South Carolina Public Service Authority, Refunding RB, Series E, 5.25%, 12/01/55	2,260	2,475,401
		8,652,720
Tennessee 0.9%		
City of Chattanooga Tennessee Health Educational & Housing Facility Board, RB, Catholic Health Initiatives, Series A, 5.25%, 1/01/45		
	980	1,019,837
County of Hardeman Tennessee Correctional Facilities Corp., RB, 7.75%, 8/01/17	525	523,478
	Par	
	(000)	Value
Municipal Bonds		
Tennessee (continued)		
Metropolitan Government of Nashville & Davidson County Health & Educational Facilities Board, RB, Vanderbilt University Medical Center, Series A, 5.00%, 7/01/40	\$ 495	\$ 540,000
		2,083,315
Texas 5.9%		
Central Texas Regional Mobility Authority, Refunding RB:		
Senior Lien, 6.25%, 1/01/21 (c)	1,480	1,739,622
Sub-Lien, 5.00%, 1/01/33	250	266,710
Central Texas Turnpike System, Refunding RB, Series C, 5.00%, 8/15/42	425	460,470
City of Austin Texas Airport System, ARB, Revenue, AMT, 5.00%, 11/15/39	440	478,069
City of Austin Texas Electric Utility Revenue, Refunding RB, Series A, 5.00%, 11/15/37	1,500	1,647,390
City of Dallas Texas Waterworks & Sewer System Revenue, Refunding RB, 5.00%, 10/01/20 (c)	485	545,421
City of Houston Texas Airport System, Refunding ARB, Senior Lien, Series A, 5.50%, 7/01/39	1,070	1,128,443
County of Harris Texas Cultural Education Facilities Finance Corp., RB, 1st Mortgage, Brazos Presbyterian Homes, Inc. Project, Series B, 7.00%, 1/01/23 (c)	325	408,363
County of Harris Texas Health Facilities Development Corp., Refunding RB, Memorial Hermann Healthcare System, Series B, 7.25%, 12/01/18 (c)	1,910	2,118,687
La Vernia Higher Education Finance Corp., RB, Kipp, Inc., Series A, 6.38%, 8/15/19 (c)	450	506,641
North Texas Tollway Authority, RB, CAB, Special Project System, Series B, 0.00%, 9/01/37 (b)	1,400	530,754
Texas Private Activity Bond Surface Transportation Corp., RB, Senior Lien: LBJ Infrastructure Group LLC, 7.00%, 6/30/40	2,000	2,287,340

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par (000)	Value
Municipal Bonds		
Texas (continued)		
Texas Private Activity Bond Surface Transportation Corp., RB, Senior Lien (continued):		
NTE Mobility Partners LLC, North Tarrant Express Managed Lanes Project, 6.88%, 12/31/39	\$ 1,700	\$ 1,922,258
		14,040,168
Virginia 1.8%		
County of Hanover Virginia EDA, Refunding RB, Covenant Woods, Series A:		
5.00%, 7/01/42	625	625,269
Residential Care Facility, 5.00%, 7/01/47	970	966,945
Virginia Small Business Financing Authority, RB, Senior Lien, Elizabeth River Crossings OpCo LLC Project, AMT:		
5.25%, 1/01/32	550	588,973
6.00%, 1/01/37	1,830	2,050,057
		4,231,244
Washington 1.7%		
Grant County Public Utility District No. 2, Refunding RB, Series A, 5.00%, 1/01/43		
	1,555	1,732,285
Port of Seattle Washington, RB, Series C, AMT, 5.00%, 4/01/40	540	590,231
Washington Health Care Facilities Authority, RB, Catholic Health Initiatives, Series A, 5.75%, 1/01/45		
	1,625	1,812,379
		4,134,895
Wisconsin 3.7%		
State of Wisconsin, Refunding RB, Series A, 6.00%, 5/01/19 (c)		
	4,980	5,507,830
State of Wisconsin Health & Educational Facilities Authority, RB, Ascension Health Senior Credit Group, Series E, 5.00%, 11/15/33		
	1,710	1,853,828
Municipal Bonds		
Wisconsin (continued)		
Wisconsin Health & Educational Facilities Authority, Refunding RB, Medical College of Wisconsin, Inc., 4.00%, 12/01/46		
	\$ 1,305	\$ 1,305,979
		8,667,637
Wyoming 0.1%		
Wyoming Municipal Power Agency, Inc., RB, Series A, 5.00%, 1/01/19 (c)		
	210	225,240
Total Municipal Bonds 113.5%		268,693,735

Municipal Bonds Transferred to**Tender Option Bond Trusts (f)**

Alabama 0.5%		
Auburn University, Refunding RB, Series A, 4.00%, 6/01/41		
	1,220	1,246,681
California 9.0%		
Bay Area Toll Authority, Refunding RB, San Francisco Bay Area, Series F-1, 5.63%, 4/01/44 (c)		
	2,270	2,487,972
California Educational Facilities Authority, RB, University of Southern California, Series B, 5.25%, 10/01/39 (c)(g)		
	1,845	1,976,161
City & County of San Francisco California Public Utilities Commission, RB, Water Revenue, Series B, 5.00%, 11/01/39 (c)		
	6,600	7,286,466
City of Los Angeles California Department of Airports, Refunding ARB, Los Angeles International Airport, Senior Series A, 5.00%, 5/15/40		
	4,121	4,542,889
Los Angeles Community College District California, GO, Election of 2001, Series A (AGM), 5.00%, 8/01/32 (c)		
	1,620	1,654,473
Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment District No.2, Series A, 5.00%, 10/01/47		
	2,250	2,545,639

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

Municipal Bonds Transferred to

	Par (000)	Value
Tender Option Bond Trusts (f)		
California (continued)		
San Diego Community College District California, GO, Election of 2002, 5.25%, 8/01/33 (c)	\$ 748	\$ 822,251
		21,315,851
Colorado 3.7%		
Colorado Health Facilities Authority, RB, Catholic Health (AGM) (c):		
Series C-3, 5.10%, 10/01/41	2,580	2,711,038
Series C-7, 5.00%, 9/01/36	1,650	1,732,121
Colorado Health Facilities Authority, Refunding RB, Catholic Health Initiatives, Series A, 5.50%, 7/01/34 (g)	1,490	1,547,104
County of Adams Colorado, COP, Refunding, 4.00%, 12/01/45	2,700	2,734,020
		8,724,283
Florida 1.8%		
County of Miami-Dade Florida, RB, Water & Sewer System, 5.00%, 10/01/34	3,939	4,337,144
Georgia 1.0%		
Private Colleges & Universities Authority, Refunding RB, Emory University, Series C, 5.00%, 9/01/38 (c)	2,259	2,399,692
Massachusetts 2.1%		
Massachusetts School Building Authority, RB, Senior, Series B, 5.00%, 10/15/41	4,502	5,044,551
New Hampshire 0.7%		
New Hampshire Health & Education Facilities Authority, RB, Dartmouth College, 5.25%, 6/01/39 (c)(g)	1,410	1,539,741
New York 9.1%		
City of New York New York Municipal Water Finance Authority, Refunding RB, Water & Sewer System, 2nd General Resolution, Series FF-2, 5.50%, 6/15/40		
	1,110	1,212,209
Hudson Yards Infrastructure Corp., RB, Fiscal 2012, Series A, 5.75%, 2/15/47 (g)	1,110	1,256,261
Metropolitan Transportation Authority, Refunding RB, Series C-1, 5.25%, 11/15/56	3,240	3,668,361
Municipal Bonds Transferred to		
Tender Option Bond Trusts (f)		
New York (continued)		
New York Liberty Development Corp., RB, 1 World Trade Center Port Authority Consolidated Bonds, 5.25%, 12/15/43	\$ 7,440	\$ 8,307,792
New York Liberty Development Corp., Refunding RB, 4 World Trade Center Project, 5.75%, 11/15/51 (g)	4,460	5,076,325
Port Authority of New York & New Jersey, Refunding ARB, 194th Series, 5.25%, 10/15/55	1,860	2,109,649
		21,630,597
North Carolina 1.4%		
North Carolina Capital Facilities Finance Agency, Refunding RB:		
Duke University Project, Series B, 5.00%, 10/01/55	1,830	2,051,027
Wake Forest University, 5.00%, 1/01/38 (c)	1,080	1,158,592
		3,209,619
Ohio 4.4%		
State of Ohio, Refunding RB, Cleveland Clinic Health System Obligated Group, Series A, 5.50%, 1/01/39	9,644	10,286,225
Pennsylvania 0.8%		
Pennsylvania Turnpike Commission, RB, Series 2017, 5.50%, 12/01/42	1,695	1,932,487
Texas 6.2%		
City of San Antonio Texas Public Service Board, RB, Electric & Gas Systems, Junior Lien, 5.00%, 2/01/43	1,720	1,918,608
County of Harris Texas, Refunding RB, Toll Road, Senior Lien, Series A (g):		
5.00%, 8/15/38 (c)	2,620	2,810,601
5.00%, 8/15/38	2,004	2,149,867
County of Harris Texas Metropolitan Transit Authority, Refunding RB, Series A, 5.00%, 11/01/41	2,350	2,614,258
University of Texas, Refunding RB, Financing System, Series B, 5.00%, 8/15/43	2,041	2,289,845

BLACKROCK MUNIHOLDINGS FUND, INC.

JANUARY 31, 2017

9

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

Municipal Bonds Transferred to

	Par (000)	Value
Tender Option Bond Trusts (f)		
Texas (continued)		
University of Texas, Permanent University Fund, Refunding RB, Series B, 4.00%, 7/01/41	\$ 2,720	\$ 2,823,822
		14,607,001
Utah 1.1%		
City of Riverton Utah, RB, IHC Health Services, Inc., 5.00%, 8/15/41	2,519	2,671,391
Virginia 2.6%		
University of Virginia, Refunding RB, GO, 5.00%, 6/01/40	3,749	3,926,068
Virginia Small Business Financing Authority, Refunding RB, Sentara Healthcare, 5.00%, 11/01/40	2,095	2,261,735
		6,187,803
Washington 0.8%		
Central Puget Sound Regional Transit Authority, RB, Series A (AGM), 5.00%, 11/01/32 (c)	1,860	1,917,217
Wisconsin 1.8%		
Wisconsin Health & Educational Facilities Authority, Refunding RB, Froedtert & Community Health, Inc., Obligated Group, Series C, 5.25%, 4/01/39 (g)	3,959	4,163,675
		Value
Total Municipal Bonds Transferred to		\$ 111,213,958
Tender Option Bond Trusts - 47.0%		\$ 111,213,958
Total Long-Term Investments		379,907,693
(Cost \$354,649,145) 160.5%		
Short-Term Securities		
	Shares	
BlackRock Liquidity Funds, MuniCash, Institutional Class, 0.50% (h)(i)	911,029	911,120
Total Short-Term Securities		911,120
(Cost \$911,100) 0.4%		
Total Investments		380,818,813
(Cost \$355,560,245) 160.9%		
Other Assets Less Liabilities 1.4%		3,207,116
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable (26.9)%		(63,585,547)
VMTP Shares, at Liquidation Value (35.4)%		(83,700,000)
Net Assets Applicable to Common Shares 100.0%		\$ 236,740,382

* As of January 31, 2017, gross unrealized appreciation and depreciation based on cost for federal income tax purposes were as follows:

Tax cost	\$ 292,798,321
Gross unrealized appreciation	\$ 27,846,037
Gross unrealized depreciation	(3,298,243)
Net unrealized appreciation	\$ 24,547,794

Notes to Schedule of Investments

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- (a) Security exempt from registration pursuant to Rule 144A under the Securities Act of 1933, as amended. These securities may be resold in transactions exempt from registration to qualified institutional investors.
- (b) Zero-coupon bond.
- (c) 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.
- (d) Step-up bond that pays an initial coupon rate for the first period and then a higher coupon rate for the following periods. Rate as of period end.
- (e) When-issued security.
- (f) Represent bonds transferred to a TOB Trust in exchange of cash and residual certificates received by the Fund. These bonds serve as collateral in a secured borrowing.
- (g) All or a portion of security is subject to a recourse agreement. The aggregate maximum potential amount the Fund could ultimately be required to pay under the agreements, which expire between April 1, 2017 to February 15, 2031, is \$11,675,108.

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

(h) During the period ended January 31, 2017, investments in issuers considered to be an affiliate of the Fund for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

Affiliate	Shares Held at April 30, 2016	Net Activity	Shares Held at January 31, 2017	Value at January 31, 2017	Income	Net Realized Gain (Loss)	Change in Unrealized Appreciation (Depreciation)
BlackRock Liquidity Funds, MuniCash, Institutional Class	1,575,949	(664,920)	911,029	\$ 911,120	\$ 4,426	\$ 377	\$ 20

(i) Current yield as of period end.

Derivative Financial Instruments Outstanding as of Period End

Futures Contracts

Contracts	Issue	Expiration	Notional Value	Unrealized Depreciation
Short				
(42)	5-Year U.S. Treasury Note	March 2017	\$ 4,950,422	\$ (10,210)
(70)	10-Year U.S. Treasury Note	March 2017	\$ 8,712,812	(29,816)
(60)	Long U.S. Treasury Bond	March 2017	\$ 9,050,625	(21,771)
(18)	Ultra U.S. Treasury Bond	March 2017	\$ 2,892,375	(15,583)
Total				\$ (77,380)

Portfolio Abbreviations

AGC	Assured Guarantee Corp.
AGM	Assured Guaranty Municipal Corp.
AMT	Alternative Minimum Tax (subject to)
ARB	Airport Revenue Bonds
CAB	Capital Appreciation Bonds
COP	Certificates of Participation
EDA	Economic Development Authority
EDC	Economic Development Corp.
GARB	General Airport Revenue Bonds
GO	General Obligation Bonds
IDA	Industrial Development Authority
LRB	Lease Revenue Bonds
NPFGC	National Public Finance Guarantee Corp.
RB	Revenue Bonds

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

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 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. 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. 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 Fund'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 Fund's policy regarding valuation of investments and derivative financial instruments, refer to the Fund's most recent financial statements as contained in its semi-annual report.

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

	Level 1	Level 2	Level 3	Total
Assets:				
Investments:				
Long-Term Investments ¹		\$ 379,907,693		\$ 379,907,693
Short-Term Securities	\$ 911,120			911,120
Total	\$ 911,120	\$ 379,907,693		\$ 380,818,813
Derivative Financial Instruments ²				
Liabilities:				
Interest rate contracts	\$ (77,380)			\$ (77,380)

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

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

Schedule of Investments (concluded)

BlackRock MuniHoldings Fund, Inc. (MHD)

The Fund 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:

	Level 1	Level 2	Level 3	Total
Liabilities:				
TOB Trust Certificates		\$ (63,472,698)		\$ (63,472,698)
VMTP Shares at Liquidation Value		(83,700,000)		(83,700,000)
Total		\$ (147,172,698)		\$ (147,172,698)

During the ended January 31, 2017, there were no transfers between levels.

BLACKROCK MUNIHOLDINGS FUND, INC.

JANUARY 31, 2017

13

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 Fund, Inc.

By: /s/ John M. Perlowski

John M. Perlowski

Chief Executive Officer (principal executive officer) of

BlackRock MuniHoldings Fund, Inc.

Date: March 23, 2017

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 Fund, Inc.

Date: March 23, 2017

By: /s/ Neal J. Andrews

Neal J. Andrews

Chief Financial Officer (principal financial officer) of

BlackRock MuniHoldings Fund, Inc.

Date: March 23, 2017