

BLACKROCK MUNIHOLDINGS FUND, INC.

Form N-Q

March 24, 2016

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: 04/30/2016

Date of reporting period: 01/31/2016

Item 1 Schedule of Investments

Schedule of Investments January 31, 2016 (Unaudited)

BlackRock MuniHoldings Fund, Inc. (MHD)

(Percentages shown are based on Net Assets)

	Par	
	(000)	Value
Municipal Bonds		
Alabama 3.8%		
County of Jefferson Alabama, RB, Limited Obligation School, Series A, 5.00%, 1/01/24	\$ 4,550	\$ 4,594,590
County of Jefferson Alabama Sewer, Refunding RB:		
Senior Lien, Series A (AGM), 5.00%, 10/01/44	570	627,678
Senior Lien, Series A (AGM), 5.25%, 10/01/48	1,090	1,216,015
Sub-Lien, Series D, 6.00%, 10/01/42	1,000	1,164,190
Sub-Lien, Series D, 7.00%, 10/01/51	1,545	1,919,632
		9,522,105
Alaska 0.6%		
Northern Tobacco Securitization Corp., Refunding RB, Tobacco Settlement, Asset-Backed, Series A, 5.00%, 6/01/46	1,660	1,402,849
Arizona 2.3%		
County of Maricopa Arizona IDA, RB, Arizona Charter Schools Project, Series A, 6.75%, 7/01/29	565	547,547
Salt Verde Financial Corp., RB, Senior:		
5.00%, 12/01/32	2,000	2,413,340
5.00%, 12/01/37	2,360	2,832,590
		5,793,477
California 12.1%		
California Health Facilities Financing Authority, RB:		
St. Joseph Health System, Series A, 5.75%, 7/01/39	1,530	1,757,159
Sutter Health, Series B, 6.00%, 8/15/42	2,200	2,653,750
California Health Facilities Financing Authority, Refunding RB, St. Joseph Health System, Series A, 5.00%, 7/01/33	875	1,025,570
California Municipal Finance Authority, RB, Senior, Caritas Affordable Housing, Inc. Projects, S/F Housing, Series A:		
5.25%, 8/15/39	105	118,633
5.25%, 8/15/49	265	298,218
California Pollution Control Financing Authority, RB, Poseidon Resources (Channel Side) LP Desalination Project, AMT, 5.00%, 11/21/45 (a)	1,025	1,119,556
	Par	
	(000)	Value
Municipal Bonds		
California (continued)		
California Statewide Communities Development Authority, RB, John Muir Health, Series A, 5.13%, 7/01/39	\$ 1,510	\$ 1,663,733
City of Los Angeles California Department of Airports, Refunding ARB, Los Angeles International Airport, Series A, 5.25%, 5/15/39	555	624,575
City of Stockton California Public Financing Authority, RB, Delta Water Supply Project, Series A, 6.25%, 10/01/38	255	317,641
Montebello Unified School District, GO, CAB (NPFGC), 0.00%, 8/01/22 (b)	2,405	2,093,216
San Diego Unified School District California, GO, CAB, Election of 2008, Series A, 0.00%, 7/01/29 (b)	3,475	2,333,184
Sequoia Union High School District, GO, Refunding, Election of 2004, Series B (AGM), 5.50%, 7/01/16 (c)	3,490	3,567,583
State of California, GO, Various Purposes, 6.50%, 4/01/33	8,370	9,826,715
State of California Public Works Board, LRB, Various Capital Projects:		
Series I, 5.00%, 11/01/38	550	638,379
Sub-Series I-1, 6.38%, 11/01/34	820	985,730
Tobacco Securitization Authority of Southern California, Refunding RB, Tobacco Settlement, Asset-Backed, Senior Series A-1, 4.75%, 6/01/25	1,520	1,520,350
		30,543,992
Colorado 2.4%		
Colorado Educational & Cultural Facilities Authority, RB, Charter School, Colorado Springs, 5.50%, 7/01/40	1,455	1,567,050
County of Adams Colorado, COP, Refunding, 4.00%, 12/01/40	590	614,355
Regional Transportation District, COP, Refunding, Series A, 5.38%, 6/01/31	710	815,790
Regional Transportation District, RB, Denver Transit Partners Eagle P3 Project, 6.00%, 1/15/34	1,425	1,611,133

BLACKROCK MUNIHOLDINGS FUND, INC.

JANUARY 31, 2016

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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	\$ 1,431,563
		6,039,891
Connecticut 1.1%		
Connecticut State Health & Educational Facility Authority, Refunding RB, Wesleyan University, Series G, 5.00%, 7/01/35	2,515	2,859,631
Delaware 1.7%		
County of Sussex Delaware, RB, NRG Energy, Inc., Indian River Power LLC Project, 6.00%, 10/01/40	790	857,276
Delaware State EDA, RB, Exempt Facilities, Indian River Power LLC Project, 5.38%, 10/01/45	2,430	2,519,667
Delaware Transportation Authority, RB, 5.00%, 6/01/55	840	948,881
		4,325,824
District of Columbia 4.1%		
District of Columbia, Tax Allocation Bonds, City Market at O Street Project, 5.13%, 6/01/41	1,520	1,655,478
Metropolitan Washington Airports Authority, Refunding RB, Dulles Toll Road:		
1st Senior Lien, Series A, 5.00%, 10/01/39	505	561,307
1st Senior Lien, Series A, 5.25%, 10/01/44	1,470	1,643,416
CAB, 2nd Senior Lien, Series B (AGC), 0.00%, 10/01/35 (b)	13,485	6,419,265
		10,279,466
Florida 5.1%		
City of Clearwater Florida Water & Sewer Revenue, RB, Series A, 5.25%, 12/01/39	2,375	2,677,076
County of Broward Florida Water & Sewer Utility, Refunding RB, Series A, 5.25%, 10/01/18 (c)	750	839,325
County of Collier Florida Health Facilities Authority, Refunding RB, Series A, 5.00%, 5/01/45	960	1,076,189
County of Miami-Dade Florida, RB, CAB, Series A (NPFGC), 0.00%, 10/01/37 (b)	910	296,696
	Par	
Municipal Bonds		
Florida (continued)		
County of Miami-Dade Florida Aviation, Refunding ARB, Miami International Airport, Series A-1, 5.38%, 10/01/41	\$ 2,620	\$ 2,990,782
Mid-Bay Bridge Authority, RB, Springing Lien, Series A, 7.25%, 10/01/21 (c)	2,095	2,767,684
Palm Coast Park Community Development District, Special Assessment Bonds, 5.70%, 5/01/37	605	518,775
Village Community Development District No. 10, Special Assessment Bonds, 5.13%, 5/01/43	1,485	1,648,499
		12,815,026
Georgia 1.9%		
County of Gainesville Georgia & Hall Hospital Authority, Refunding RB, Northeast Georgia Health System, Inc. Project, Series A, 5.50%, 8/15/54	370	441,236
DeKalb Private Hospital Authority, Refunding RB, Children's Healthcare, 5.25%, 11/15/39	585	658,686
Metropolitan Atlanta Rapid Transit Authority, RB, Sales Tax, 3rd Indenture, Series A, 5.00%, 7/01/39	2,410	2,695,513
Municipal Electric Authority of Georgia, RB, Plant Vogtle Units 3 & 4 Project, Series A, 5.00%, 7/01/60	805	891,884
		4,687,319
Hawaii 0.4%		
State of Hawaii Harbor System, RB, Series A, 5.25%, 7/01/30	945	1,077,801
Illinois 15.7%		
City of Chicago Illinois, GARB, O'Hare International Airport, 3rd Lien:		
Series A, 5.75%, 1/01/39	2,000	2,335,560
Series C, 6.50%, 1/01/41	4,055	4,893,574
City of Chicago Illinois, GO, Project, 5.00%, 1/01/34	1,265	1,219,966
City of Chicago Illinois, GO, Refunding, Series A:		
Project, 5.25%, 1/01/32	2,195	2,210,453
5.00%, 1/01/35	2,000	1,926,460

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par	
	(000)	Value
Municipal Bonds		
Illinois (continued)		
City of Chicago Illinois, Refunding RB, Sales Tax, Series A, 5.25%, 1/01/38	\$ 570	\$ 610,635
City of Chicago Illinois, Special Assessment Bonds, Lake Shore East, 6.75%, 12/01/32	897	901,144
City of Chicago Illinois Transit Authority, RB, Sales Tax Receipts, 5.25%, 12/01/40	730	798,109
City of Chicago Illinois Waterworks, Refunding RB, 2nd Lien Project, 5.00%, 11/01/42	1,000	1,069,010
County of Cook Illinois Community College District No. 508, GO, City College of Chicago, 5.50%, 12/01/38	560	649,913
Illinois Finance Authority, Refunding RB, Central Dupage Health, Series B, 5.50%, 11/01/39	1,115	1,277,244
Illinois State Toll Highway Authority, RB:		
Senior, Series C, 5.00%, 1/01/36	1,870	2,167,162
Senior, Series C, 5.00%, 1/01/37	2,000	2,309,340
Series A, 5.00%, 1/01/38	1,610	1,807,756
Metropolitan Pier & Exposition Authority, Refunding RB, McCormick Place Expansion Project:		
CAB, Series B (AGM), 0.00%, 6/15/47 (b)	13,220	3,134,330
Series B (AGM), 5.00%, 6/15/50	3,070	3,260,401
Series B-2, 5.00%, 6/15/50	1,740	1,807,042
Railsplitter Tobacco Settlement Authority, RB:		
5.50%, 6/01/23	315	372,765
6.00%, 6/01/28	800	962,824
State of Illinois, GO:		
5.00%, 2/01/39	1,100	1,157,772
Series A, 5.00%, 4/01/38	2,625	2,758,717
State of Illinois, RB, Build Illinois, Series B, 5.25%, 6/15/34	440	489,958
University of Illinois, RB, Auxiliary Facilities System, Series A:		
5.00%, 4/01/39	580	647,895
	Par	
	(000)	Value
Municipal Bonds		
Illinois (continued)		
University of Illinois, RB, Auxiliary Facilities System, Series A (continued):		
5.00%, 4/01/44	\$ 705	\$ 781,676
		39,549,706
Indiana 4.3%		
City of Valparaiso Indiana, RB, Exempt Facilities, Pratt Paper LLC Project, AMT:		
6.75%, 1/01/34	560	685,821
7.00%, 1/01/44	1,355	1,670,051
Indiana Finance Authority, RB, Series A:		
CWA Authority Project, 1st Lien, 5.25%, 10/01/38	2,275	2,685,273
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.25%, 1/01/51	290	316,181
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/44	310	335,312
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/48	1,030	1,109,259
Sisters of St. Francis Health Services, 5.25%, 11/01/39	585	653,661
Indiana Finance Authority, Refunding RB, Parkview Health System, Series A, 5.75%, 5/01/31	1,300	1,479,764
Indiana Municipal Power Agency, RB, Series B, 6.00%, 1/01/39	775	879,819
Indianapolis Local Public Improvement Bond Bank, RB, Series A, 5.00%, 1/15/40	880	989,234
		10,804,375
Iowa 2.1%		
Iowa Finance Authority, Refunding RB, Midwestern Disaster Area, Iowa Fertilizer Co. Project:		
5.00%, 12/01/19	665	695,883
5.50%, 12/01/22	1,630	1,714,140
5.25%, 12/01/25	320	349,235
Iowa Student Loan Liquidity Corp., Refunding RB, Student Loan, Senior Series A-1, AMT, 5.15%, 12/01/22	870	925,663

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par	
	(000)	Value
Municipal Bonds		
Iowa (continued)		
Iowa Tobacco Settlement Authority, Refunding RB, Asset-Backed, Series C, 5.63%, 6/01/46	\$ 1,730	\$ 1,721,367
		5,406,288
Kansas 0.7%		
Kansas Development Finance Authority, Refunding RB, Adventist Health, Series C, 5.75%, 11/15/38	1,520	1,753,122
Kentucky 0.6%		
Kentucky Economic Development Finance Authority, RB, Catholic Health Initiatives, Series A, 5.25%, 1/01/45	705	793,153
Kentucky Public Transportation Infrastructure Authority, RB, Downtown Crossing Project, Convertible CAB, 1st Tier, Series C, 0.00%, 7/01/43 (d)	865	654,217
		1,447,370
Louisiana 3.4%		
East Baton Rouge Sewerage Commission, RB, Series A, 5.25%, 2/01/19 (c)	570	643,268
Louisiana Local Government Environmental Facilities & Community Development Authority, RB, Westlake Chemical Corp. Project, 6.75%, 11/01/32	3,500	3,785,250
New Orleans Aviation Board, RB, Passenger Facility Charge, Series A, 5.25%, 1/01/41	430	457,993
Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A:		
5.50%, 5/15/30	700	787,290
5.25%, 5/15/31	600	673,254
5.25%, 5/15/32	765	868,282
5.25%, 5/15/33	830	926,521
5.25%, 5/15/35	350	392,028
		8,533,886
Maine 0.1%		
Maine Health & Higher Educational Facilities Authority, RB, Series A, 5.00%, 7/01/39	210	232,208
	Par	
	(000)	Value
Municipal Bonds		
Maryland 1.0%		
Maryland EDC, RB, Transportation Facilities Project, Series A, 5.75%, 6/01/35	\$ 300	\$ 328,671
Maryland EDC, Refunding RB, CNX Marine Terminals, Inc., 5.75%, 9/01/25	530	506,908
Maryland Health & Higher Educational Facilities Authority, Refunding RB, Charlestown Community Project, 6.25%, 1/01/41	1,520	1,725,838
		2,561,417
Massachusetts 1.3%		
Massachusetts Development Finance Agency, Refunding RB:		
Boston University, Series P, 5.45%, 5/15/59	1,165	1,412,364
Covanta Energy Project, Series C, AMT, 5.25%, 11/01/42 (a)	1,575	1,584,041
Massachusetts Health & Educational Facilities Authority, Refunding RB, Partners Healthcare System, Series J1, 5.00%, 7/01/39	255	284,575
		3,280,980
Michigan 3.0%		
City of Detroit Michigan Sewage Disposal System, Refunding RB, Senior Lien, Series A, 5.25%, 7/01/39	3,085	3,430,520
Kalamazoo Hospital Finance Authority, Refunding RB, Bronson Methodist Hospital, 5.50%, 5/15/36	955	1,072,589
Michigan Finance Authority, Refunding RB, Detroit Water & Sewage Department Project, Senior Lien, Series C-1, 5.00%, 7/01/44	630	682,410
Michigan State Hospital Finance Authority, Refunding RB, Henry Ford Health System, 5.75%, 11/15/39	2,105	2,403,594
		7,589,113
Minnesota 1.0%		

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City of Minneapolis Minnesota, Refunding RB, Fairview Health Services, Series A, 6.75%, 11/15/18 (c)	2,135	2,478,543
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Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par	
	(000)	Value
Municipal Bonds		
Mississippi 0.3%		
University of Southern Mississippi, RB, Campus Facilities Improvements Project, 5.38%, 9/01/19 (c)	\$ 675	\$ 780,820
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	197,141
State of Missouri Health & Educational Facilities Authority, Refunding RB, St. Louis College of Pharmacy Project, 5.50%, 5/01/43	175	194,168
		391,309
Nebraska 0.3%		
Central Plains Energy Project Nebraska, RB, Gas Project No. 3, 5.25%, 9/01/37	575	649,974
New Hampshire 1.4%		
New Hampshire Health & Education Facilities Authority, Refunding RB, Dartmouth-Hitchcock, 6.00%, 8/01/38	3,035	3,496,320
New Jersey 7.2%		
Casino Reinvestment Development Authority, Refunding RB:		
5.25%, 11/01/39	735	765,297
5.25%, 11/01/44	1,095	1,132,175
County of Essex New Jersey Improvement Authority, RB, AMT, 5.25%, 7/01/45 (a)	775	805,287
New Jersey EDA, RB, Continental Airlines, Inc. Project, AMT:		
5.13%, 9/15/23	1,410	1,564,057
5.25%, 9/15/29	1,365	1,498,743
New Jersey EDA, Refunding, Special Assessment Bonds, Kapkowski Road Landfill Project, 5.75%, 4/01/31	1,550	1,810,788
New Jersey State Turnpike Authority, RB:		
Series A, 5.00%, 1/01/43	1,925	2,168,686
Series E, 5.00%, 1/01/45	1,875	2,131,987
New Jersey Transportation Trust Fund Authority, RB:		
Transportation Program, Series AA, 5.00%, 6/15/44	2,505	2,636,137
Transportation System, Series A, 5.50%, 6/15/41	1,575	1,704,134
	Par	
	(000)	Value
Municipal Bonds		
New Jersey (continued)		
New Jersey Transportation Trust Fund Authority, RB (continued):		
Transportation System, Series B, 5.25%, 6/15/36	\$ 1,705	\$ 1,824,145
		18,041,436
New York 8.1%		
City of New York New York Transitional Finance Authority, RB, Fiscal 2012, Sub-Series E-1, 5.00%, 2/01/42	1,560	1,781,832
Counties of New York Tobacco Trust IV, Refunding RB, Settlement Pass-Through Turbo, Series A, 6.25%, 6/01/41 (a)	1,300	1,357,889
County of Dutchess New York IDA, Refunding RB, Bard College Civic Facility, 5.00%, 8/01/46	1,800	1,713,546
County of Westchester New York Healthcare Corp., RB, Senior Lien, Series A, 5.00%, 11/01/44	241	271,100
Erie Tobacco Asset Securitization Corp., Refunding RB, Asset-Backed, Series A, 5.00%, 6/01/45	1,405	1,366,967
Long Island Power Authority, Refunding RB, Electric System, Series A, 5.75%, 4/01/39	1,450	1,630,351
Metropolitan Transportation Authority, RB, Series B, 5.25%, 11/15/38	1,715	2,025,398
Metropolitan Transportation Authority, Refunding RB, Dedicated Tax Fund, Series B, 5.00%, 11/15/34	1,740	1,977,075
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	959,939
3 World Trade Center Project, Class 1, 5.00%, 11/15/44 (a)	2,490	2,644,479
3 World Trade Center Project, Class 2, 5.15%, 11/15/34 (a)	245	259,364
3 World Trade Center Project, Class 2, 5.38%, 11/15/40 (a)	605	645,771

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	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:		
6.00%, 12/01/36	\$ 900	\$ 1,053,882
6.00%, 12/01/42	875	1,020,154
Westchester Tobacco Asset Securitization, Refunding RB, 5.13%, 6/01/45	1,700	1,692,214
		20,399,961
North Carolina 0.6%		
North Carolina Medical Care Commission, RB, Health Care Facilities, Duke University Health System, Series A, 5.00%, 6/01/42		
	970	1,081,327
North Carolina Medical Care Commission, Refunding RB, 1st Mortgage, Retirement Facilities Whitestone Project, Series A, 7.75%, 3/01/41	415	476,727
		1,558,054
Ohio 0.5%		
County of Franklin Ohio, RB, Health Care Facilities Improvement, OPRS Communities Obligation Group, Series A, 6.13%, 7/01/40		
	470	519,613
State of Ohio, RB, Portsmouth Bypass Project, AMT, 5.00%, 6/30/53	580	631,672
		1,151,285
Oklahoma 0.4%		
County of Epworth Oklahoma Finance Authority, Refunding RB, Epworth Villa Project, Series A, 5.13%, 4/01/42		
	975	915,905
Pennsylvania 3.0%		
City of Philadelphia Pennsylvania Hospitals & Higher Education Facilities Authority, RB, Temple University Health System, Series A, 5.63%, 7/01/42		
	460	497,352
Pennsylvania Economic Development Financing Authority, RB:		
American Water Co. Project, 6.20%, 4/01/39	2,520	2,875,875
AMT, Pennsylvania Bridge Finco LP, 5.00%, 6/30/42	2,015	2,217,749
	Par (000)	Value
Municipal Bonds		
Pennsylvania (continued)		
Pennsylvania Economic Development Financing Authority, Refunding RB, National Gypson Co., AMT, 5.50%, 11/01/44		
	\$ 1,105	\$ 1,153,255
Pennsylvania Turnpike Commission, RB, Series A, 5.00%, 12/01/44	795	895,250
		7,639,481
Rhode Island 0.9%		
Tobacco Settlement Financing Corp., Refunding RB, Series B:		
4.50%, 6/01/45	1,900	1,925,954
5.00%, 6/01/50	305	316,270
		2,242,224
South Carolina 3.7%		
South Carolina State Ports Authority, RB:		
5.25%, 7/01/40	2,285	2,576,109
AMT, 5.25%, 7/01/55	925	1,023,873
State of South Carolina Public Service Authority, RB, Santee Cooper, Series A, 5.50%, 12/01/54	2,790	3,212,183
State of South Carolina Public Service Authority, Refunding RB, Santee Cooper, Series E, 5.25%, 12/01/55	2,260	2,564,535
		9,376,700
Tennessee 1.7%		
City of Chattanooga Tennessee Health Educational & Housing Facility Board, RB, Catholic Health Initiatives, Series A, 5.25%, 1/01/45		
	980	1,102,539
County of Hardeman Tennessee Correctional Facilities Corp., RB, 7.75%, 8/01/17	1,010	1,009,970
County of Shelby Tennessee Health Educational & Housing Facilities Board, Refunding RB, St. Jude s Children s Research Hospital, 5.00%, 7/01/31	2,250	2,291,872

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		4,404,381
Texas 6.1%		
Central Texas Regional Mobility Authority, Refunding RB:		
Senior Lien, 6.25%, 1/01/46	1,480	1,712,478
Sub-Lien, 5.00%, 1/01/33	250	275,615

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par (000)	Value
Municipal Bonds		
Texas (continued)		
Central Texas Turnpike System, Refunding RB, Series C, 5.00%, 8/15/42	\$ 425	\$ 473,382
City of Austin Texas Airport System, ARB, Revenue, AMT, 5.00%, 11/15/39	440	494,173
City of Austin Texas Electric Utility Revenue, Refunding RB, Series A, 5.00%, 11/15/37	1,500	1,714,800
City of Dallas Texas Waterworks & Sewer System, Refunding RB, 5.00%, 10/01/35	1,050	1,210,450
City of Houston Texas Airport System, Refunding ARB, Senior Lien, Series A, 5.50%, 7/01/39	1,070	1,178,562
County of Harris Texas Cultural Education Facilities Finance Corp., RB, 1st Mortgage, Brazos Presbyterian Homes, Inc. Project, Series B, 7.00%, 1/01/48	325	384,469
County of Harris Texas Health Facilities Development Corp., Refunding RB, Memorial Hermann Healthcare System, Series B, 7.25%, 12/01/18 (c)	1,910	2,252,711
La Vernia Higher Education Finance Corp., RB, Kipp, Inc., Series A, 6.38%, 8/15/19 (c)	450	533,849
North Texas Tollway Authority, RB, CAB, Special Project System, Series B, 0.00%, 9/01/37 (b)	1,400	580,496
Texas Private Activity Bond Surface Transportation Corp., RB, Senior Lien:		
LBJ Infrastructure Group LLC, LBJ Freeway Managed Lanes Project, 7.00%, 6/30/40	2,000	2,414,520
NTE Mobility Partners LLC, North Tarrant Express Managed Lanes Project, 6.88%, 12/31/39	1,700	2,002,447
		15,227,952
Vermont 0.0%		
Vermont Educational & Health Buildings Financing Agency, RB, Developmental & Mental Health, Series A, 6.00%, 6/15/17	20	20,388
Virginia 2.8%		
County of Fairfax Virginia EDA, Refunding RB, Goodwin House, Inc., 5.13%, 10/01/42	1,000	1,038,350
Municipal Bonds		
Virginia (continued)		
County of Hanover Virginia EDA, Refunding RB, Covenant Woods, Series A: 5.00%, 7/01/42	\$ 625	\$ 644,700
Residential Care Facility, 5.00%, 7/01/47	970	998,731
Virginia Small Business Financing Authority, RB, Senior Lien, Elizabeth River Crossings OpCo LLC Project, AMT: 5.25%, 1/01/32	550	613,619
6.00%, 1/01/37	3,180	3,675,158
		6,970,558
Washington 2.3%		
Grant County Public Utility District No 2, Refunding RB, Series A: 5.00%, 1/01/41	1,355	1,578,453
5.00%, 1/01/43	1,555	1,807,097
Port of Seattle Washington, RB, Series C, AMT, 5.00%, 4/01/40	540	601,819
Washington Health Care Facilities Authority, RB, Catholic Health Initiatives, Series A, 5.75%, 1/01/45	1,625	1,925,836
		5,913,205
Wisconsin 3.1%		
State of Wisconsin, Refunding RB, Series A, 6.00%, 5/01/36	4,980	5,758,275
State of Wisconsin Health & Educational Facilities Authority, RB, Ascension Health Senior Credit Group, Series E, 5.00%, 11/15/33	1,710	1,940,747
		7,699,022
Wyoming 0.1%		
Wyoming Municipal Power Agency, Inc., RB, Series A, 5.00%, 1/01/42	210	228,230
Total Municipal Bonds 111.4%		280,091,594

Municipal Bonds Transferred to**Tender Option Bond Trusts (e)****California 7.7%**

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Bay Area Toll Authority, Refunding RB, San Francisco Bay Area, Series F-1, 5.63%,
4/01/19 (c)

2,270

2,609,315

BLACKROCK MUNIHOLDINGS FUND, INC.

JANUARY 31, 2016

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Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

Municipal Bonds Transferred to

	Par (000)	Value
Tender Option Bond Trusts (e)		
California (continued)		
California Educational Facilities Authority, RB, University of Southern California, Series B, 5.25%, 10/01/39 (f)	\$ 1,845	\$ 2,059,149
City & County of San Francisco California Public Utilities Commission, RB, Water Revenue, Series B, 5.00%, 11/01/39	6,600	7,453,182
City of Los Angeles California Department of Airports, Refunding ARB, Los Angeles International Airport, Senior Series A, 5.00%, 5/15/40	4,121	4,675,508
Los Angeles Community College District California, GO, Election of 2001, Series A (AGM), 5.00%, 8/01/17 (c)	1,620	1,729,285
San Diego Community College District California, GO, Election of 2002, 5.25%, 8/01/33	748	856,066
		19,382,505
Colorado 3.6%		
Colorado Health Facilities Authority, RB, Catholic Health (AGM) (c):		
Series C-3, 5.10%, 4/29/18	2,580	2,724,609
Series C-7, 5.00%, 5/01/18	1,650	1,745,832
Colorado Health Facilities Authority, Refunding RB, Catholic Health Initiatives, Series A, 5.50%, 7/01/34 (f)	1,490	1,680,690
County of Adams Colorado, COP, Refunding, 4.00%, 12/01/45	2,700	2,788,722
		8,939,853
Connecticut 2.7%		
Connecticut State Health & Educational Facility Authority, RB, Yale University:		
Series T-1, 4.70%, 7/01/29	3,179	3,346,713
Series X-3, 4.85%, 7/01/37	3,262	3,444,783
		6,791,496
Florida 1.8%		
County of Miami-Dade Florida, RB, Water & Sewer System, 5.00%, 10/01/34	3,939	4,495,571
Municipal Bonds Transferred to		
	Par (000)	Value
Tender Option Bond Trusts (e)		
Georgia 1.0%		
Private Colleges & Universities Authority, Refunding RB, Emory University, Series C, 5.00%, 9/01/38	\$ 2,259	\$ 2,479,300
Massachusetts 2.1%		
Massachusetts School Building Authority, RB, Senior, Series B, 5.00%, 10/15/41	4,502	5,292,186
New Hampshire 0.6%		
New Hampshire Health & Education Facilities Authority, RB, Dartmouth College, 5.25%, 6/01/39 (f)	1,409	1,598,818
New York 7.4%		
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	1,266,491
Hudson Yards Infrastructure Corp., RB, Fiscal 2012, Series A, 5.75%, 2/15/47 (f)	1,110	1,292,214
New York Liberty Development Corp., RB, 1 World Trade Center Port Authority Consolidated Bonds, 5.25%, 12/15/43	7,440	8,648,717
New York Liberty Development Corp., Refunding RB, 4 World Trade Center Project, 5.75%, 11/15/51 (f)	4,460	5,216,503
Port Authority of New York & New Jersey, Refunding ARB, 194th Series, 5.25%, 10/15/55	1,860	2,201,422
		18,625,347
North Carolina 1.3%		
North Carolina Capital Facilities Finance Agency, Refunding RB:		
Duke University Project, Series B, 5.00%, 10/01/55	1,830	2,133,561
Wake Forest University, 5.00%, 1/01/38	1,080	1,193,227
		3,326,788
Ohio 4.3%		
State of Ohio, Refunding RB, Cleveland Clinic Health System Obligated Group, Series A, 5.50%, 1/01/39	9,644	10,881,161

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

Municipal Bonds Transferred to

	Par (000)	Value
Tender Option Bond Trusts (e)		
Texas 4.8%		
City of San Antonio Texas Public Service Board, RB, Electric & Gas Systems, Junior Lien, 5.00%, 2/01/43	\$ 1,720	\$ 1,933,590
County of Harris Texas, RB, Senior Lien, Toll Road, Series A, 5.00%, 8/15/38 (f)	4,624	5,149,495
County of Harris Texas Metropolitan Transit Authority, Refunding RB, Series A, 5.00%, 11/01/41	2,350	2,729,689
University of Texas, Refunding RB, Financing System, Series B, 5.00%, 8/15/43	2,041	2,383,399
		12,196,173
Utah 1.1%		
City of Riverton Utah, RB, IHC Health Services, Inc., 5.00%, 8/15/41	2,519	2,758,557
Virginia 2.6%		
University of Virginia, Refunding RB, GO, 5.00%, 6/01/40	3,749	4,088,780
Virginia Small Business Financing Authority, Refunding RB, Sentara Healthcare, 5.00%, 11/01/40	2,095	2,336,015
		6,424,795
Washington 0.8%		
Central Puget Sound Regional Transit Authority, RB, Series A (AGM), 5.00%, 11/01/17 (c)	1,860	2,001,283
Municipal Bonds Transferred to		
	Par	Value
Tender Option Bond Trusts (e)		
Wisconsin 1.7%		
Wisconsin Health & Educational Facilities Authority, Refunding RB, Froedtert & Community Health, Inc., Obligated Group, Series C, 5.25%, 4/01/39 (f)	\$ 3,959	\$ 4,305,047
Total Municipal Bonds Transferred to		
Tender Option Bond Trusts 43.5%		109,498,880
Total Long-Term Investments		
(Cost \$348,155,293) 154.9%		389,590,474
Short-Term Securities 1.5%		
	Shares	Value
BlackRock Liquidity Funds, MuniCash, 0.02% (g)(h)	3,829,651	3,829,651
Total Short-Term Securities		
(Cost \$3,829,651) 1.5%		3,829,651
Total Investments		
(Cost \$351,984,944*) 156.4%		393,420,125
Other Assets Less Liabilities 0.9%		2,077,732
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable (24.0)%		(60,296,687)
VMTP Shares, at Liquidation Value (33.3)%		(83,700,000)
Net Assets Applicable to Common Shares 100.0%		\$ 251,501,170

* As of January 31, 2016, gross unrealized appreciation and depreciation based on cost for federal income tax purposes were as follows:

Tax cost	\$ 292,477,627
Gross unrealized appreciation	\$ 41,751,108
Gross unrealized depreciation	(1,097,473)
Net unrealized appreciation	\$ 40,653,635

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) 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.
- (f) 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 October 1, 2016 to February 15, 2031, is \$11,665,098.
- (g) Current yield as of period end.

BLACKROCK MUNIHOLDINGS FUND, INC.

JANUARY 31, 2016

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Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

(h) During the period ended January 31, 2016, investments in issuers considered to be affiliates 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, 2015	Net Activity	Shares Held at January 31, 2016	Income
BlackRock Liquidity Fund, MuniCash		3,829,651	3,829,651	
FFI Institutional Tax-Exempt Fund	1,340,347	(1,340,347)		\$ 554

Derivative Financial Instruments Outstanding as of Period End
Financial Futures Contracts

Contracts Short	Issue	Expiration	Notional Value	Unrealized Depreciation
(28)	5-Year U.S. Treasury Note	March 2016	\$ 3,378,813	\$ (48,296)
(29)	10-Year U.S. Treasury Note	March 2016	\$ 3,757,766	(81,631)
(16)	Long U.S. Treasury Bond	March 2016	\$ 2,576,500	(92,965)
(5)	U.S. Ultra Treasury Bond	March 2016	\$ 830,937	(32,147)
Total				\$ (255,039)

Portfolio Abbreviations

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

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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. The significant unobservable inputs used by the Global Valuation Committee in determining the price for Fair Valued Investments are typically categorized as Level 3.

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		\$ 389,590,474		\$ 389,590,474
Short-Term Securities	\$ 3,829,651			3,829,651
Total	\$ 3,829,651	\$ 389,590,474		\$ 393,420,125

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

	Level 1	Level 2	Level 3	Total
Derivative Financial Instruments ¹				
Liabilities:				
Interest rate contracts	\$ (255,039)			\$ (255,039)

¹ Derivative financial instruments are financial 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
Assets:				
Cash	\$ 45			\$ 45
Cash pledged for financial futures contracts	152,550			152,550
Liabilities:				
TOB Trust Certificates		\$ (60,288,863)		(60,288,863)
VMTP Shares		(83,700,000)		(83,700,000)
Total	\$ 152,595	\$ (143,988,863)		\$ (143,836,268)

During the period ended January 31, 2016, 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 Fund, Inc.

By: /s/ John M. Perlowski
John M. Perlowski
Chief Executive Officer (principal executive officer) of
BlackRock MuniHoldings Fund, Inc.

Date: March 22, 2016

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 22, 2016

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

Date: March 22, 2016