

BLACKROCK MUNIHOLDINGS FUND, INC.

Form N-Q

September 25, 2014

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM N-Q

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED

MANAGEMENT INVESTMENT COMPANY

Investment Company Act file number: 811-08081

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: 04/30/2015

Date of reporting period: 07/31/2014

Item 1 Schedule of Investments

Schedule of Investments July 31, 2014 (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	\$ 4,571,385
County of Jefferson Alabama Sewer, Refunding RB:		
Senior Lien, Series A (AGM), 5.00%, 10/01/44	570	595,274
Senior Lien, Series A (AGM), 5.25%, 10/01/48	1,090	1,157,133
Sub-Lien, Series D, 6.00%, 10/01/42	1,000	1,085,710
Sub-Lien, Series D, 7.00%, 10/01/51	1,545	1,806,352
		9,215,854
Alaska 0.5%		
Northern Tobacco Securitization Corp., Refunding RB, Tobacco Settlement, Asset-Backed, Series A, 5.00%, 6/01/46	1,660	1,231,820
Arizona 3.6%		
City of Show Low Arizona, Special Assessment Bonds, Improvement District No. 5, 6.38%, 1/01/15	40	40,715
County of Maricopa Arizona IDA, RB, Arizona Charter Schools Project, Series A, 6.75%, 7/01/29	1,800	1,663,182
Phoenix IDA Arizona, Refunding RB, America West Airlines, Inc. Project, AMT, 6.30%, 10/01/14 (a)	2,215	2,235,931
Salt Verde Financial Corp., RB, Senior:		
5.00%, 12/01/32	2,000	2,192,260
5.00%, 12/01/37	2,360	2,576,011
		8,708,099
California 13.7%		
California Health Facilities Financing Authority, RB:		
St. Joseph Health System, Series A, 5.75%, 7/01/39	1,530	1,770,975
Sutter Health, Series B, 6.00%, 8/15/42	2,200	2,633,180
California Health Facilities Financing Authority, Refunding RB, St. Joseph Health System, Series A, 5.00%, 7/01/33	875	960,698
	Par (000)	Value
Municipal Bonds		
California (continued)		
California Municipal Finance Authority Mobile Home Park, RB, Senior, Caritas Affordable Housing, Inc. Projects, Series A, S/F:		
5.25%, 8/15/39	\$ 105	\$ 112,002
5.25%, 8/15/49	265	281,231
California Pollution Control Financing Authority, RB (b):		
County of San Diego California Water Authority Desalination Project Pipeline, 5.00%, 11/21/45	865	875,605
Poseidon Resources (Channel Side) LP Desalination Project, AMT, 5.00%, 7/01/37	710	730,540
Poseidon Resources (Channel Side) LP Desalination Project, AMT, 5.00%, 11/21/45	1,025	1,050,604
California Statewide Communities Development Authority, RB, John Muir Health, Series A, 5.13%, 7/01/39	1,510	1,636,946
City of Los Angeles California Department of Airports, Refunding ARB, Los Angeles International Airport, Series A, 5.25%, 5/15/39	555	630,325
City of Stockton California Public Financing Authority, RB, Delta Water Supply Project, Series A, 6.25%, 10/01/38	255	288,609
Montebello Unified School District, GO, CAB (NPFGC), 0.00%, 8/01/22 (c)	2,405	1,879,483
San Diego Community College District California, GO, Election of 2006, 5.00%, 8/01/43	750	838,058
San Diego Unified School District California, GO, CAB, Election of 2008, Series A, 0.00%, 7/01/29 (c)	3,475	1,953,158
Sequoia Union High School District, GO, Refunding, Election of 2004, Series B (AGM), 5.50%, 7/01/16 (a)	3,490	3,838,686
State of California, GO, Various Purposes, 6.50%, 4/01/33	8,370	10,181,686
State of California Public Works Board, LRB, Various Capital Project: Series I, 5.00%, 11/01/38	550	603,290

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

(Percentages shown are based on Net Assets)

	Par	
	(000)	Value
Municipal Bonds		
California (concluded)		
State of California Public Works Board, LRB, Various Capital Project (concluded): Sub-Series I-1, 6.38%, 11/01/34	\$ 820	\$ 988,822
Tobacco Securitization Authority of Southern California, Refunding RB, Tobacco Settlement, Asset-Backed, Senior Series A-1, 4.75%, 6/01/25	2,040	1,972,925
		33,226,823
Colorado 2.7%		
Colorado Educational & Cultural Facilities Authority, RB, Charter School, Colorado Springs, 5.50%, 7/01/40	1,455	1,525,174
Colorado Health Facilities Authority, Refunding RB, Evangelical Lutheran Good Samaritan Society Project, 5.00%, 12/01/42	1,230	1,274,255
Regional Transportation District, COP, Refunding, Series A, 5.38%, 6/01/31	710	777,500
Regional Transportation District, RB, Denver Transit Partners Eagle P3 Project, 6.00%, 1/15/34	1,425	1,583,845
University of Colorado, RB, Series A, 5.38%, 6/01/38	1,250	1,433,475
		6,594,249
Connecticut 1.2%		
Connecticut State Health & Educational Facility Authority, Refunding RB, Wesleyan University, Series G, 5.00%, 7/01/35	2,515	2,811,871
Delaware 1.4%		
County of Sussex Delaware, RB, NRG Energy, Inc., Indian River Power LLC Project, 6.00%, 10/01/40	790	869,735
Delaware State EDA, RB, Exempt Facilities, Indian River Power LLC Project, 5.38%, 10/01/45	2,430	2,556,603
		3,426,338
District of Columbia 3.4%		
District of Columbia, Tax Allocation Bonds, City Market at O Street Project, 5.13%, 6/01/41	1,520	1,593,477
	Par	
Municipal Bonds		
District of Columbia (concluded)		
Metropolitan Washington Airports Authority, Refunding RB: CAB, 2nd Senior Lien, Series B (AGC), 0.00%, 10/01/35 (c)	\$ 13,485	\$ 4,588,001
Dulles Toll Road, 1st Senior Lien, Series A, 5.00%, 10/01/39	505	536,078
Dulles Toll Road, 1st Senior Lien, Series A, 5.25%, 10/01/44	1,470	1,579,765
		8,297,321
Florida 5.8%		
City of Clearwater Florida Water & Sewer Revenue, RB, Series A, 5.25%, 12/01/39	2,375	2,570,700
County of Broward Florida Water & Sewer Utility, Refunding RB, Series A, 5.25%, 10/01/34	750	841,612
County of Hillsborough Florida IDA, RB, National Gypsum Co., Series B, AMT, 7.13%, 4/01/30	1,900	1,901,919
County of Miami-Dade Florida, RB, CAB, Series A (NPFGC), 0.00%, 10/01/37 (c)	2,340	707,265
County of Miami-Dade Florida Aviation, Refunding ARB, Miami International Airport, Series A-1, 5.38%, 10/01/41	2,620	2,919,833
County of Tampa-Hillsborough Florida Expressway Authority, Refunding RB, Series A, 5.00%, 7/01/37	450	484,376
Mid-Bay Bridge Authority, RB, Springing Lien, Series A, 7.25%, 10/01/40	2,095	2,511,130
Palm Coast Park Community Development District, Special Assessment Bonds, 5.70%, 5/01/37	620	423,249
Village Community Development District No. 10, Special Assessment Bonds, 5.13%, 5/01/43	1,635	1,635,392
		13,995,476
Georgia 1.4%		
DeKalb Private Hospital Authority, Refunding RB, Children's Healthcare, 5.25%, 11/15/39	585	656,528

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

(Percentages shown are based on Net Assets)

	Par	
	(000)	Value
Municipal Bonds		
Georgia (concluded)		
Metropolitan Atlanta Rapid Transit Authority, RB, Sales Tax, 3rd Indenture, Series A, 5.00%, 7/01/39	\$ 2,410	\$ 2,686,065
		3,342,593
Hawaii 0.4%		
State of Hawaii Harbor System, RB, Series A, 5.25%, 7/01/30	945	1,047,032
Illinois 15.8%		
City of Chicago Illinois, GARB, O Hare International Airport, 3rd Lien:		
Series A, 5.75%, 1/01/39	2,000	2,250,440
Series C, 6.50%, 1/01/41	4,055	4,851,402
City of Chicago Illinois, GO, Project, Series A, 5.00%, 1/01/34	2,230	2,265,814
City of Chicago Illinois, GO, Refunding, Project, Series A, 5.25%, 1/01/32	2,195	2,296,124
City of Chicago Illinois, GO, Refunding Series A, 5.00%, 1/01/35	2,000	2,029,940
City of Chicago Illinois, Refunding RB, Sales Tax, Series A, 5.25%, 1/01/38	570	610,407
City of Chicago Illinois, Special Assessment Bonds, Lake Shore East, 6.75%, 12/01/32	900	912,618
City of Chicago Illinois Board of Education, GO, Series A, 5.25%, 12/01/41	3,210	3,252,629
City of Chicago Illinois Transit Authority, RB, Sales Tax Receipts, 5.25%, 12/01/40	730	790,838
City of Chicago Illinois Waterworks, Refunding RB, 2nd Lien Project, 5.00%, 11/01/42	1,000	1,044,590
County of Cook Illinois Community College District No. 508, GO, City College of Chicago, 5.50%, 12/01/38	560	625,789
Illinois Finance Authority, Refunding RB, Central Dupage Health, Series B, 5.50%, 11/01/39	1,115	1,246,548
Illinois State Toll Highway Authority, RB, Series A, 5.00%, 1/01/38	1,610	1,750,424
	Par	
	(000)	Value
Municipal Bonds		
Illinois (concluded)		
Metropolitan Pier & Exposition Authority, Refunding RB, McCormick Place Expansion Project:		
CAB, Series B (AGM), 0.00%, 6/15/47 (c)	\$ 13,220	\$ 2,461,167
Series B (AGM), 5.00%, 6/15/50	3,070	3,190,743
Series B-2, 5.00%, 6/15/50	1,740	1,808,017
Railsplitter Tobacco Settlement Authority, RB:		
5.50%, 6/01/23	315	366,440
6.00%, 6/01/28	800	931,136
State of Illinois, GO:		
5.00%, 2/01/39	1,100	1,108,272
Series A, 5.00%, 4/01/38	2,625	2,650,567
State of Illinois, RB, Build Illinois, Series B, 5.25%, 6/15/34	440	486,706
University of Illinois, RB, Auxiliary Facilities System, Series A:		
5.00%, 4/01/39	580	628,511
5.00%, 4/01/44	705	761,026
		38,320,148
Indiana 4.1%		
City of Valparaiso Indiana, RB, Exempt Facilities, Pratt Paper LLC Project, AMT:		
6.75%, 1/01/34	560	622,849
7.00%, 1/01/44	1,355	1,510,662
Indiana Finance Authority, RB, Series A:		
CWA Authority Project, 1st Lien, 5.25%, 10/01/38	2,275	2,523,794
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/44	310	320,348
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/48	1,030	1,062,095
Sisters of St. Francis Health Services, 5.25%, 11/01/39	585	622,417
Indiana Finance Authority, Refunding RB, Parkview Health System, Series A, 5.75%, 5/01/31	1,300	1,446,146
Indiana Municipal Power Agency, RB, Series B, 6.00%, 1/01/39	775	875,618

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

(Percentages shown are based on Net Assets)

	Par	
	(000)	Value
Municipal Bonds		
Indiana (concluded)		
Indianapolis Local Public Improvement Bond Bank, RB, Series A, 5.00%, 1/15/40	\$ 880	\$ 963,063
		9,946,992
Iowa 2.2%		
Iowa Finance Authority, Refunding RB, Midwestern Disaster Area, Iowa Fertilizer Co. Project:		
5.00%, 12/01/19	665	699,068
5.50%, 12/01/22	1,630	1,699,601
5.25%, 12/01/25	320	337,258
Iowa Student Loan Liquidity Corp., Refunding RB, Student Loan, Senior Series A-1, AMT, 5.15%, 12/01/22	1,020	1,076,600
Iowa Tobacco Settlement Authority, Refunding RB, Asset-Backed, Series C, 5.63%, 6/01/46	1,730	1,429,706
		5,242,233
Kansas 0.7%		
Kansas Development Finance Authority, Refunding RB, Adventist Health, Series C, 5.75%, 11/15/38	1,520	1,703,996
Kentucky 0.5%		
Kentucky Economic Development Finance Authority, RB, Catholic Health Initiatives, Series A, 5.25%, 1/01/45	705	765,856
Kentucky Public Transportation Infrastructure Authority, RB, Downtown Crossing Project, Convertible CAB, 1st Tier, Series C, 0.00%, 7/01/43 (d)	865	555,693
		1,321,549
Louisiana 3.5%		
East Baton Rouge Sewerage Commission, RB, Series A, 5.25%, 2/01/39	570	635,288
Louisiana Local Government Environmental Facilities & Community Development Authority, RB, Westlake Chemical Corp. Project, 6.75%, 11/01/32	3,500	3,893,575
New Orleans Aviation Board, RB, Passenger Facility Charge, Series A, 5.25%, 1/01/41	430	452,081
	Par	
Municipal Bonds		
Louisiana (concluded)		
Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A:		
5.50%, 5/15/30	\$ 700	\$ 765,842
5.25%, 5/15/31	600	643,800
5.25%, 5/15/32	765	813,141
5.25%, 5/15/33	830	878,289
5.25%, 5/15/35	350	371,938
		8,453,954
Maine 0.1%		
Maine Health & Higher Educational Facilities Authority, RB, Series A, 5.00%, 7/01/39	210	221,197
Maryland 1.2%		
Maryland EDC, RB, Transportation Facilities Project, Series A, 5.75%, 6/01/35	300	318,795
Maryland EDC, Refunding RB, CNX Marine Terminals, Inc., 5.75%, 9/01/25	820	895,161
Maryland Health & Higher Educational Facilities Authority, Refunding RB, Charlestown Community Project, 6.25%, 1/01/41	1,520	1,663,215
		2,877,171
Massachusetts 2.5%		
Massachusetts Development Finance Agency, Refunding RB:		
Boston University, Series P, 5.45%, 5/15/59	1,165	1,333,820
Covanta Energy Project, Series C, AMT, 5.25%, 11/01/42	1,575	1,592,908
Massachusetts Health & Educational Facilities Authority, Refunding RB, Partners Healthcare System, Series J1, 5.00%, 7/01/39	255	279,233
Massachusetts HFA, RB, M/F Housing, Series A, AMT, 5.25%, 12/01/48	2,900	2,908,932

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6,114,893

Michigan 3.3%

City of Detroit Michigan Sewage Disposal System, Refunding RB, Senior Lien:

Series A, 5.00%, 7/01/32	1,090	1,058,554
Series A, 5.25%, 7/01/39	3,085	3,021,881
Series B (AGM), 7.50%, 7/01/33	635	694,931

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BLACKROCK MUNIHOLDINGS FUND, INC.

JULY 31, 2014

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
Michigan (concluded)		
Kalamazoo Hospital Finance Authority, Refunding RB, Bronson Methodist Hospital, 5.50%, 5/15/36	\$ 955	\$ 1,018,651
State of Michigan Hospital Finance Authority, Refunding RB, Henry Ford Health, 5.75%, 11/15/39	2,105	2,268,495
		8,062,512
Minnesota 1.0%		
City of Minneapolis Minnesota, Refunding RB, Fairview Health Services, Series A, 6.75%, 11/15/32	2,135	2,525,257
Mississippi 0.3%		
University of Southern Mississippi, RB, Campus Facilities Improvements Project, 5.38%, 9/01/36	675	741,089
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	191,546
State of Missouri Health & Educational Facilities Authority, Refunding RB, St. Louis College of Pharmacy Project, 5.50%, 5/01/43	175	188,185
		379,731
Nebraska 0.3%		
Central Plains Energy Project Nebraska, RB, Gas Project No. 3, 5.25%, 9/01/37	575	615,595
New Hampshire 1.4%		
New Hampshire Health & Education Facilities Authority, Refunding RB, Dartmouth-Hitchcock, 6.00%, 8/01/38	3,035	3,374,404
New Jersey 4.9%		
New Jersey EDA, RB, Continental Airlines, Inc. Project, AMT:		
5.13%, 9/15/23	1,410	1,473,126
5.25%, 9/15/29	1,365	1,406,360
New Jersey EDA, Refunding, Special Assessment Bonds, Kapkowski Road Landfill Project, 5.75%, 4/01/31	1,550	1,681,207
	Par (000)	Value
Municipal Bonds		
New Jersey (concluded)		
New Jersey State Turnpike Authority, RB, Series A, 5.00%, 1/01/43	\$ 1,925	\$ 2,080,232
New Jersey Transportation Trust Fund Authority, RB, Transportation System:		
Series A, 5.50%, 6/15/41	1,575	1,744,564
Series B, 5.25%, 6/15/36	1,705	1,854,290
Rutgers - The State University of New Jersey, Refunding RB, Series L, 5.00%, 5/01/43	365	405,070
Tobacco Settlement Financing Corp. New Jersey, Refunding RB, Series 1A, 4.50%, 6/01/23	1,215	1,191,587
		11,836,436
New York 8.4%		
City of New York New York Industrial Development Agency, ARB, British Airways PLC Project, AMT, 7.63%, 12/01/32	1,500	1,507,800
City of New York New York Transitional Finance Authority, RB, Future Tax Secured Bonds, Fiscal 2012, Sub-Series E-1, 5.00%, 2/01/42	1,560	1,701,367
County of Dutchess Industrial Development Agency, Refunding RB, 5.00%, 8/01/46	3,800	3,764,052
County of Westchester Healthcare Corp., RB, Senior Lien, Series A, 5.00%, 11/01/44	679	720,706
Long Island Power Authority, Refunding RB, Electric System, Series A, 5.75%, 4/01/39	1,450	1,643,328
Metropolitan Transportation Authority, RB, Series B, 5.25%, 11/15/38	1,715	1,921,074
Metropolitan Transportation Authority, Refunding RB, Dedicated Tax Fund, Series B, 5.00%, 11/15/34	1,740	1,933,766
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	935,808
Port Authority of New York & New Jersey, ARB, Special Project, JFK International Air Terminal LLC Project, Series 8:		
6.00%, 12/01/36	900	1,038,087
6.00%, 12/01/42	875	1,003,870

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
New York (concluded)		
Sales Tax Asset Receivable Corp., Refunding RB, Series A (AMBAC), 5.25%, 10/15/27	\$ 4,240	\$ 4,282,273
		20,452,131
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	1,071,132
North Carolina Medical Care Commission, Refunding RB, 1st Mortgage, Retirement Facilities Whitestone Project, Series A, 7.75%, 3/01/41	415	460,169
		1,531,301
Ohio 0.2%		
County of Franklin Ohio, RB, Health Care Facilities Improvement, OPRS Communities Obligation Group, Series A, 6.13%, 7/01/40	470	501,034
Oklahoma 0.3%		
County of Epworth Oklahoma Finance Authority, Refunding RB, Epworth Villa Project, Series A, 5.13%, 4/01/42	975	799,519
Pennsylvania 3.9%		
City of Philadelphia Pennsylvania Hospitals & Higher Education Facilities Authority, RB, Temple University Health System, Series A, 5.63%, 7/01/42	885	895,372
City of Philadelphia Pennsylvania IDA, RB:		
Arbor House, Inc. Project, Series E, 6.10%, 7/01/33	1,065	1,073,413
Retirement Facilities, Saligman House Project, Section 8, Series C (HUD), 6.10%, 7/01/33	1,210	1,219,559
Pennsylvania Economic Development Financing Authority, RB:		
American Water Co. Project, 6.20%, 4/01/39	2,520	2,888,752
National Gypsum Co., Series B, AMT, 6.13%, 11/01/27	2,500	2,500,650
	Par (000)	Value
Municipal Bonds		
Pennsylvania (concluded)		
State of Pennsylvania Turnpike Commission, RB, Series A, 5.00%, 12/01/44	\$ 795	\$ 870,875
		9,448,621
South Carolina 2.2%		
South Carolina State Ports Authority, RB, 5.25%, 7/01/40	2,285	2,465,287
State of South Carolina Public Service Authority, RB, Series A, 5.50%, 12/01/54	2,580	2,856,524
		5,321,811
Tennessee 2.0%		
City of Chattanooga Tennessee Health Educational & Housing Facility Board, RB, Catholic Health Initiatives, Series A, 5.25%, 1/01/45	980	1,064,594
County of Hardeman Tennessee Correctional Facilities Corp., RB, 7.75%, 8/01/17	1,460	1,451,196
County of Shelby Health Educational & Housing Facilities Board, Refunding RB, St. Jude s Childrens Research Hospital, 5.00%, 7/01/31	2,250	2,377,575
		4,893,365
Texas 8.8%		
Central Texas Regional Mobility Authority, Refunding RB:		
Senior Lien, 6.25%, 1/01/46	1,480	1,660,974
Sub-Lien, 5.00%, 1/01/33	250	260,180
Sub-Lien, 5.00%, 1/01/42	220	225,843
City of Austin Texas Electric Utility Revenue, Refunding RB, Series A, 5.00%, 11/15/37	1,500	1,650,390
City of Dallas Texas Waterworks & Sewer System, Refunding RB, 5.00%, 10/01/35	1,050	1,189,220
City of Houston Texas Airport System, Refunding ARB, Senior Lien, Series A, 5.50%, 7/01/39	1,070	1,210,619
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	360,708

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
Texas (concluded)		
County of Harris Texas Health Facilities Development Corp., Refunding RB, Memorial Hermann Healthcare System, Series B, 7.25%, 12/01/18 (a)	\$ 1,910	\$ 2,410,305
La Vernia Higher Education Finance Corp., RB, Kipp, Inc., Series A, 6.38%, 8/15/44	450	502,677
North Texas Tollway Authority, RB, CAB, Special Project System, Series B, 0.00%, 9/01/37 (c)	1,400	417,900
North Texas Tollway Authority, Refunding RB, 2nd Tier System, Series F, 6.13%, 1/01/31	4,190	4,444,124
San Antonio Energy Acquisition Public Facility Corp., RB, Gas Supply: 5.50%, 8/01/24	1,100	1,272,216
5.50%, 8/01/25	1,120	1,309,661
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	2,375,220
NTE Mobility Partners LLC, North Tarrant Express Managed Lanes Project, 6.88%, 12/31/39	1,700	1,995,647
		21,285,684
Vermont 0.2%		
Vermont Educational & Health Buildings Financing Agency, RB, Developmental & Mental Health, Series A, 6.00%, 6/15/17	375	382,196
Virginia 2.7%		
County of Fairfax Virginia EDA, Refunding RB, Goodwin House, Inc., 5.13%, 10/01/42	1,000	1,024,720
County of Hanover Virginia EDA, Refunding RB, Covenant Woods, Series A: 5.00%, 7/01/42	625	591,719
Residential Care Facility, 5.00%, 7/01/47	970	911,431
Virginia Small Business Financing Authority, RB, Senior Lien, Elizabeth River Crossings OpCo LLC Project, AMT: 5.25%, 1/01/32	550	588,192
	Par (000)	Value
Municipal Bonds		
Virginia (concluded)		
Virginia Small Business Financing Authority, RB, Senior Lien, Elizabeth River Crossings OpCo LLC Project, AMT (concluded): 6.00%, 1/01/37	\$ 3,180	\$ 3,546,145
		6,662,207
Washington 0.8%		
Washington Health Care Facilities Authority, RB, Catholic Health Initiatives, Series A, 5.75%, 1/01/45	1,625	1,830,172
Wisconsin 3.2%		
State of Wisconsin, Refunding RB, Series A, 6.00%, 5/01/36	4,980	5,875,802
State of Wisconsin Health & Educational Facilities Authority, RB, Ascension Health Senior Credit Group, Series E, 5.00%, 11/15/33	1,710	1,844,765
		7,720,567
Wyoming 0.1%		
Wyoming Municipal Power Agency, Inc., RB, Series A, 5.00%, 1/01/42	210	217,386
Total Municipal Bonds 113.3%		274,680,627

Municipal Bonds Transferred to**Tender Option Bond (TOB) Trusts (e)**

	Par (000)	Value
California 8.0%		
Bay Area Toll Authority, Refunding RB, San Francisco Bay Area, Series F-1, 5.63%, 4/01/19 (a)	2,270	2,734,687
California Educational Facilities Authority, RB, University of Southern California, Series B, 5.25%, 10/01/39 (f)	1,845	2,081,345
City & County of San Francisco California Public Utilities Commission, RB, Water Revenue, Series B, 5.00%, 11/01/39	6,600	7,339,662
City of Los Angeles California Department of Airports, Refunding ARB, Los Angeles International Airport, Senior Series A, 5.00%, 5/15/40	4,122	4,514,642

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

(Percentages shown are based on Net Assets)

Municipal Bonds Transferred to

	Par (000)	Value
Tender Option Bond (TOB) Trusts (e)		
California (concluded)		
Los Angeles Community College District California, GO, Election of 2001, Series A (AGM), 5.00%, 8/01/32	\$ 1,620	\$ 1,790,764
San Diego Community College District California, GO, Election of 2002, 5.25%, 8/01/33	748	861,386
		19,322,486
Colorado 2.5%		
Colorado Health Facilities Authority, RB, Catholic Health (AGM):		
Series C-3, 5.10%, 10/01/41	2,580	2,688,566
Series C-7, 5.00%, 9/01/36	1,650	1,719,680
Colorado Health Facilities Authority, Refunding RB, Catholic Health Initiatives, Series A, 5.50%, 7/01/34 (f)	1,490	1,696,566
		6,104,812
Connecticut 2.9%		
Connecticut State Health & Educational Facility Authority, RB, Yale University:		
Series T-1, 4.70%, 7/01/29	3,179	3,466,750
Series X-3, 4.85%, 7/01/37	3,262	3,544,539
		7,011,289
Florida 1.8%		
County of Miami-Dade Florida, RB, Water & Sewer System, 5.00%, 10/01/34	3,939	4,359,377
Georgia 1.0%		
Private Colleges & Universities Authority, Refunding RB, Emory University, Series C, 5.00%, 9/01/38	2,259	2,498,623
Massachusetts 2.1%		
Massachusetts School Building Authority, RB, Senior, Series B, 5.00%, 10/15/41	4,502	4,980,576
New Hampshire 0.7%		
New Hampshire Health & Education Facilities Authority, RB, Dartmouth College, 5.25%, 6/01/39 (f)	1,409	1,601,215
Municipal Bonds Transferred to		
Tender Option Bond (TOB) Trusts (e)		
New York 6.5%		
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	\$ 1,269,633
Hudson Yards Infrastructure Corp., RB, Senior Bond, Fiscal 2012, Series A, 5.75%, 2/15/47 (f)	1,110	1,262,666
New York Liberty Development Corp., RB, 1 World Trade Center Port Authority Consolidated, 5.25%, 12/15/43	7,440	8,197,987
New York Liberty Development Corp., Refunding RB, 4 World Trade Center Project, 5.75%, 11/15/51 (f)	4,460	4,999,838
		15,730,124
North Carolina 0.5%		
North Carolina Capital Facilities Finance Agency, Refunding RB, Wake Forest University, 5.00%, 1/01/38	1,080	1,205,626
Ohio 4.4%		
State of Ohio, Refunding RB, Cleveland Clinic Health System Obligated Group, Series A, 5.50%, 1/01/39	9,644	10,696,749
Texas 4.9%		
City of San Antonio Texas Public Service Board, RB, Electric & Gas Systems, Junior Lien, 5.00%, 2/01/43	1,720	1,885,739
County of Harris Texas, RB, Senior Lien, Toll Road, Series A, 5.00%, 8/15/38 (f)	4,624	5,150,188
County of Harris Texas Metropolitan Transit Authority, Refunding RB, Series A, 5.00%, 11/01/41	2,350	2,586,504
University of Texas, Refunding RB, Financing System, Series B, 5.00%, 8/15/43	2,040	2,286,611
		11,909,042
Utah 1.1%		
City of Riverton Utah, RB, IHC Health Services, Inc., 5.00%, 8/15/41	2,518	2,678,371

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

(Percentages shown are based on Net Assets)

Municipal Bonds Transferred to

	Par (000)	Value
Tender Option Bond (TOB) Trusts (e)		
Virginia 2.6%		
University of Virginia, Refunding RB, General, 5.00%, 6/01/40	\$ 3,749	\$ 4,158,605
Virginia Small Business Financing Authority, Refunding RB, Sentara Healthcare, 5.00%, 11/01/40	2,095	2,239,927
		6,398,532
Washington 0.9%		
Central Puget Sound Regional Transit Authority, RB, Series A (AGM), 5.00%, 11/01/32	1,860	2,047,262
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	4,221,035
Total Municipal Bonds Transferred to		
Tender Option Bond (TOB) Trusts 41.6%		100,765,119
Total Long-Term Investments		
(Cost \$343,257,014) 154.9%		375,445,746

Short-Term Securities

	Shares	Value
FFI Institutional Tax-Exempt Fund, 0.03% (g)(h)	4,179,079	\$ 4,179,079
Total Short-Term Securities		
(Cost \$4,179,079) 1.7%		4,179,079
Total Investments (Cost \$347,436,093*) 156.6%		379,624,825
Other Assets Less Liabilities 1.3%		3,252,723
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable (23.4%)		(56,796,080)
VMTP Shares, at Liquidation Value (34.5%)		(83,700,000)
Net Assets Applicable to Common Shares 100.0%		\$ 242,381,468

* As of July 31, 2014, gross unrealized appreciation and depreciation based on cost for federal income tax purposes were as follows:

Tax cost	\$ 291,295,149
Gross unrealized appreciation	\$ 32,926,396
Gross unrealized depreciation	(1,380,420)
Net unrealized appreciation	\$ 31,545,976

Notes to Schedule of Investments

(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.

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- (b) 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.

- (c) Zero-coupon bond.

- (d) Represents a step-up bond that pays an initial coupon rate for the first period and then a higher coupon rate for the following periods. Rate shown is as of report date.

- (e) Represent bonds transferred to a TOB. In exchange for which the Fund received cash and residual interest certificates. These bonds serve as collateral in a financing transaction.

- (f) All or a portion of security is subject to a recourse agreement, which may require the Fund to pay the liquidity provider in the event there is a shortfall between the TOB trust certificates and proceeds received from the sale of the security contributed to the TOB trust. In the case of a shortfall, the aggregate maximum potential amount the Fund could ultimately be required to pay under the agreements, which expire from October 1, 2016 to February 15, 2031 is \$11,666,386.

- (g) Investments in issuers considered to be an affiliate of the Fund during the period ended July 31, 2014, 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, 2014	Net Activity	Shares Held at July 31, 2014	Income
FFI Institutional Tax-Exempt Fund	804,766	3,374,313	4,179,079	\$ 269

- (h) Represents the current yield as of report date.

BLACKROCK MUNIHOLDINGS FUND, INC.

JULY 31, 2014

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Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

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
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
HFA	Housing Finance Agency
HUD	Department of Housing and Urban Development
IDA	Industrial Development Authority
LRB	Lease Revenue Bonds
M/F	Multi-Family
NPFGC	National Public Finance Guarantee Corp.
RB	Revenue Bonds
S/F	Single-Family

Financial futures contracts outstanding as of July 31, 2014 were as follows:

Contracts Sold	Issue	Exchange	Expiration	Notional Value	Unrealized Appreciation
(184)	10-Year U.S. Treasury Note	Chicago Board of Trade	September 2014	\$ 22,928,125	\$ 198,117

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Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

Fair Value Measurements Various inputs are used in determining the fair value of investments and derivative financial instruments. These inputs to valuation techniques are categorized into a disclosure hierarchy consisting of three broad levels for financial reporting purposes as follows:

Level 1 unadjusted price quotations in active markets/exchanges for identical assets or liabilities that the Fund has the ability to access

Level 2 other observable inputs (including, but not limited to, quoted prices for similar assets or liabilities in markets that are active, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the assets or liabilities (such as interest rates, yield curves, volatilities, prepayment speeds, loss severities, credit risks and default rates) or other market-corroborated inputs)

Level 3 unobservable inputs based on the best information available in the circumstances, to the extent observable inputs are not available (including the Fund's own assumptions used in determining the fair value of investments and derivative financial instruments)

The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). Accordingly, the degree of judgment exercised in determining fair value is greatest for instruments categorized in Level 3. The inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, for disclosure purposes, the fair value hierarchy classification is determined based on the lowest level input that is significant to the fair value measurement in its entirety.

Changes in valuation techniques may result in transfers into or out of an assigned level within the disclosure hierarchy. In accordance with the Fund's policy, transfers between different levels of the fair value disclosure hierarchy are deemed to have occurred as of the beginning of the reporting period. The categorization of a value determined for investments and derivative financial instruments is based on the pricing transparency of the investment and derivative financial instrument and is not necessarily an indication of the risks associated with investing in those securities. For information about the Fund's policy regarding valuation of investments and derivative financial instruments, please refer to the Fund's most recent financial statements as contained in its annual report.

The following tables summarize the Fund's investments and derivative financial instruments categorized in the disclosure hierarchy as of July 31, 2014:

	Level 1	Level 2	Level 3	Total
Assets:				
Investments:				
Long-Term Investments ¹		\$ 375,445,746		\$ 375,445,746
Short-Term Securities	\$ 4,179,079			4,179,079
Total	\$ 4,179,079	\$ 375,445,746		\$ 379,624,825

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

	Level 1	Level 2	Level 3	Total
Derivative Financial Instruments²				
Assets:				
Interest rate contracts	\$ 198,117			\$ 198,117

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

Schedule of Investments (concluded)

BlackRock MuniHoldings 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 July 31, 2014, such assets and/or liabilities are categorized within the disclosure hierarchy as follows:

	Level 1	Level 2	Level 3	Total
Assets:				
Cash pledged for financial futures contracts	\$ 252,000			\$ 252,000
Liabilities:				
TOB trust certificates		\$ (56,783,700)		(56,783,700)
VMTP Shares		(83,700,000)		(83,700,000)
Total	\$ 252,000	\$ (140,483,700)		\$ (140,231,700)

There were no transfers between levels during the period ended July 31, 2014.

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: September 25, 2014

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

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

Date: September 25, 2014

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

Date: September 25, 2014