

BLACKROCK MUNIHOLDINGS FUND, INC.

Form N-Q

September 27, 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: 04/30/2018

Date of reporting period: 07/31/2017

Item 1 Schedule of Investments

Schedule of Investments July 31, 2017 (Unaudited)

BlackRock MuniHoldings Fund, Inc. (MHD)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
Alabama 3.9%		
County of Jefferson Alabama, RB, Limited Obligation School, Series A, 5.00%, 1/01/24	\$ 4,550	\$ 4,557,462
County of Jefferson Alabama Sewer, Refunding RB:		
Senior Lien, Series A (AGM), 5.00%, 10/01/44	570	640,834
Senior Lien, Series A (AGM), 5.25%, 10/01/48	1,090	1,241,325
Sub-Lien, Series D, 6.00%, 10/01/42	1,000	1,175,860
Sub-Lien, Series D, 7.00%, 10/01/51	1,545	1,902,899
		9,518,380
Arizona 2.7%		
City of Phoenix Arizona IDA, RB, Legacy Traditional Schools Projects, Series A, 5.00%, 7/01/46 (a)	1,230	1,255,006
Salt Verde Financial Corp., RB, Senior: 5.00%, 12/01/32	2,000	2,374,540
5.00%, 12/01/37	2,360	2,841,015
		6,470,561
California 10.9%		
California Health Facilities Financing Authority, RB:		
St. Joseph Health System, Series A, 5.75%, 7/01/39	1,530	1,659,667
Sutter Health, Series B, 6.00%, 8/15/42	2,200	2,502,874
California Health Facilities Financing Authority, Refunding RB, St. Joseph Health System, Series A, 5.00%, 7/01/33	875	999,766
California Municipal Finance Authority, RB, Senior, Caritas Affordable Housing, Inc. Projects, S/F Housing, Series A: 5.25%, 8/15/39	105	116,237
5.25%, 8/15/49	265	291,452
California Municipal Finance Authority, Refunding RB, Community Medical Centers, Series A, 5.00%, 2/01/42	165	185,995
California Pollution Control Financing Authority, RB, Poseidon Resources (Channel Side) LP Desalination Project, AMT, 5.00%, 11/21/45 (a)	1,025	1,094,013
	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	\$ 1,619,264
Loma Linda University Medical Center, 5.00%, 12/01/46 (a)	460	495,696
City of Los Angeles California Department of Airports, Refunding ARB, Los Angeles International Airport, Series A, 5.25%, 5/15/39	555	595,460
City of Stockton California Public Financing Authority, RB, Delta Water Supply Project, Series A, 6.25%, 10/01/38	255	310,911
Montebello Unified School District, GO, CAB (NPFGC), 0.00%, 8/01/22 (b)	2,405	2,206,371
San Diego Unified School District California, GO, CAB, Election of 2008, Series A, 0.00%, 7/01/29 (b)	3,475	2,427,009
State of California, GO, Various Purposes, 6.50%, 4/01/33	8,370	9,160,463
State of California Public Works Board, LRB, Various Capital Projects: Series I, 5.00%, 11/01/38	550	625,669
Sub-Series I-1, 6.38%, 11/01/19 (c)	820	919,368
Tobacco Securitization Authority of Southern California, Refunding RB, Tobacco Settlement, Asset-Backed, Senior Series A-1, 4.75%, 6/01/25	1,250	1,258,825
		26,469,040
Colorado 2.2%		
Colorado Educational & Cultural Facilities Authority, RB, Charter School, Colorado Springs, 5.50%, 7/01/40	1,455	1,525,495
Colorado High Performance Transportation Enterprise, RB, C-470 Express Lanes, 5.00%, 12/31/47	160	176,763
Regional Transportation District, COP, Refunding, Series A, 5.38%, 6/01/31	710	779,218

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Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par (000)	Value
Municipal Bonds		
Colorado (continued)		
Regional Transportation District, RB, Denver Transit Partners Eagle P3 Project, 6.00%, 1/15/34	\$ 1,425	\$ 1,573,214
University of Colorado, RB, Series A, 5.38%, 6/01/19 (c)	1,250	1,349,000
		5,403,690
Delaware 1.8%		
County of Sussex Delaware, RB, NRG Energy, Inc., Indian River Power LLC Project, 6.00%, 10/01/40	790	850,672
Delaware Transportation Authority, RB, U.S. 301 Project, 5.00%, 6/01/55	840	938,439
State of Delaware EDA, RB, Exempt Facilities, Indian River Power LLC Project, 5.38%, 10/01/45	2,430	2,529,776
		4,318,887
District of Columbia 4.7%		
District of Columbia, Refunding RB, Georgetown University: 5.00%, 4/01/35	315	372,443
Issue, 5.00%, 4/01/42	365	426,849
District of Columbia, Tax Allocation Bonds, City Market at O Street Project, 5.13%, 6/01/41	1,520	1,690,392
Metropolitan Washington Airports Authority, Refunding ARB, Dulles Toll Road, CAB, 2nd Senior Lien, Series B (AGC), 0.00%, 10/01/35 (b)	13,485	6,833,389
Metropolitan Washington Airports Authority, Refunding RB, Dulles Toll Road, 1st Senior Lien, Series A: 5.00%, 10/01/39	505	540,123
5.25%, 10/01/44	1,470	1,577,501
		11,440,697
Florida 4.8%		
City of Clearwater Florida Water & Sewer Revenue, RB, Series A, 5.25%, 12/01/19 (c)	2,375	2,608,249
County of Broward Florida Water & Sewer Utility, Refunding RB, Series A, 5.25%, 10/01/18 (c)	750	787,815
County of Collier Florida Health Facilities Authority, Refunding RB, Series A, 5.00%, 5/01/45	960	1,067,981
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	\$ 2,890,567
Mid-Bay Florida Bridge Authority, RB, Springing Lien, Series A, 7.25%, 10/01/21 (c)	2,095	2,599,874
Village Community Development District No.10, Special Assessment Bonds, 5.13%, 5/01/43	1,445	1,561,308
		11,515,794
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	436,345
DeKalb Georgia Private Hospital Authority, Refunding RB, Children's Healthcare, 5.25%, 11/15/39	585	634,854
Metropolitan Atlanta Rapid Transit Authority, RB, Sales Tax, 3rd Indenture, Series A, 5.00%, 7/01/39	2,410	2,576,820
		3,648,019
Hawaii 0.4%		
State of Hawaii Harbor System, RB, Series A, 5.25%, 7/01/30	945	1,032,847
Idaho 0.3%		
Idaho Health Facilities Authority, RB, Trinity Health Credit Group, Series A, 5.00%, 12/01/46	540	617,506
Illinois 15.6%		
City of Chicago Illinois, GO, Project, 5.00%, 1/01/34	1,265	1,268,428
City of Chicago Illinois, GO, Refunding, Project, Series A: 5.25%, 1/01/32	2,195	2,244,036
5.00%, 1/01/35	2,000	2,005,360
City of Chicago Illinois, Special Assessment Bonds, Lake Shore East, 6.75%, 12/01/32	885	885,142
City of Chicago Illinois O'Hare International Airport, ARB, 3rd Lien, Series A:		

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5.75%, 1/01/21 (c)	1,680	1,940,014
5.75%, 1/01/39	320	362,950

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Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par (000)	Value
Municipal Bonds		
Illinois (continued)		
City of Chicago Illinois O Hare International Airport, GARB, 3rd Lien, Series C, 6.50%, 1/01/21 (c)	\$ 4,055	\$ 4,784,251
City of Chicago Illinois Transit Authority, RB, Sales Tax Receipts, 5.25%, 12/01/40	730	786,392
City of Chicago Illinois Waterworks, Refunding RB, 2nd Lien Project, 5.00%, 11/01/42	1,000	1,057,060
County of Cook Illinois Community College District No. 508, GO, City College of Chicago, 5.50%, 12/01/38	560	600,723
Illinois Finance Authority, Refunding RB:		
Central Dupage Health, Series B, 5.50%, 11/01/39	1,115	1,218,227
Presence Health Network, Series C, 4.00%, 2/15/41	1,035	963,171
Illinois State Toll Highway Authority, RB, Senior:		
Series A, 5.00%, 1/01/38	415	464,788
Series C, 5.00%, 1/01/36	1,870	2,116,990
Series C, 5.00%, 1/01/37	2,000	2,264,160
Metropolitan Pier & Exposition Authority, Refunding RB, McCormick Place Expansion Project:		
CAB, Series B (AGM), 0.00%, 6/15/47 (b)	13,220	3,478,314
Series B (AGM), 5.00%, 6/15/50	3,070	3,164,986
Series B-2, 5.00%, 6/15/50	1,740	1,745,899
Railsplitter Tobacco Settlement Authority, RB:		
5.50%, 6/01/23	315	358,930
6.00%, 6/01/28	800	911,480
State of Illinois, GO:		
5.00%, 2/01/39	1,100	1,126,961
Series A, 5.00%, 4/01/38	2,625	2,684,587
State of Illinois, RB, Build Illinois, Series B, 5.25%, 6/15/19 (c)	440	474,712
University of Illinois, RB, Auxiliary Facilities System, Series A, 5.00%, 4/01/44	705	767,801
		37,675,362
Indiana 4.3%		
City of Valparaiso Indiana, RB, Exempt Facilities, Pratt Paper LLC Project, AMT:		
6.75%, 1/01/34	560	665,717
7.00%, 1/01/44	1,355	1,625,824
	Par (000)	Value
Municipal Bonds		
Indiana (continued)		
Indiana Finance Authority, RB, Series A:		
CWA Authority Project, 1st Lien, 5.25%, 10/01/38	\$ 2,275	\$ 2,595,775
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/44	310	331,653
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/48	1,030	1,105,633
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.25%, 1/01/51	290	314,000
Sisters of St. Francis Health Services, 5.25%, 11/01/39	585	629,963
Indiana Finance Authority, Refunding RB, Parkview Health System, Series A, 5.75%, 5/01/31	1,300	1,392,469
Indiana Municipal Power Agency, RB, Series B, 6.00%, 1/01/19 (c)	775	829,940
Indianapolis Local Public Improvement Bond Bank, RB, Series A, 5.00%, 1/15/40	880	995,852
		10,486,826
Iowa 1.8%		
Iowa Finance Authority, Refunding RB, Midwestern Disaster Area, Iowa Fertilizer Co. Project:		
5.00%, 12/01/19	330	337,036
5.50%, 12/01/22	1,630	1,665,729
5.25%, 12/01/25	320	341,338
5.88%, 12/01/26 (a)	285	297,477
Iowa Student Loan Liquidity Corp., Refunding RB, Student Loan, Senior Series A-1, AMT, 5.15%, 12/01/22	655	694,254
Iowa Tobacco Settlement Authority, Refunding RB, Asset-Backed, Series C, 5.63%, 6/01/46	980	963,311
		4,299,145
Kansas 0.7%		
Kansas Development Finance Authority, Refunding RB, Adventist Health, Series C, 5.75%, 11/15/38	1,520	1,660,813

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Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par (000)	Value
Municipal Bonds		
Kentucky 0.6%		
Kentucky Economic Development Finance Authority, RB, Catholic Health Initiatives, Series A, 5.25%, 1/01/45	\$ 705	\$ 757,452
Kentucky Public Transportation Infrastructure Authority, RB, Downtown Crossing Project, Convertible CAB, 1st Tier, Series C, 0.00%, 7/01/43 (d)	865	747,715
		1,505,167
Louisiana 3.3%		
East Baton Rouge Sewerage Commission, RB, Series A, 5.25%, 2/01/19 (c)	570	606,993
Louisiana Local Government Environmental Facilities & Community Development Authority, RB, Westlake Chemical Corp. Project, 6.75%, 11/01/32	3,500	3,539,305
New Orleans Aviation Board, RB, Passenger Facility Charge, Series A, 5.25%, 1/01/41	430	458,182
Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A: 5.50%, 5/15/30	700	738,759
5.25%, 5/15/31	600	636,966
5.25%, 5/15/32	765	822,016
5.25%, 5/15/33	830	888,042
5.25%, 5/15/35	350	377,034
		8,067,297
Maine 0.1%		
Maine Health & Higher Educational Facilities Authority, RB, Series A, 5.00%, 7/01/39	210	223,096
Maryland 1.2%		
Maryland EDC, RB, Transportation Facilities Project, Series A, 5.75%, 6/01/35	300	321,939
Maryland EDC, Refunding RB, CNX Marine Terminals, Inc., 5.75%, 9/01/25	530	535,909
Maryland Health & Higher Educational Facilities Authority, RB, Trinity Health Credit Group, Series 2017, 5.00%, 12/01/46	305	351,546
	Par (000)	Value
Municipal Bonds		
Maryland (continued)		
Maryland Health & Higher Educational Facilities Authority, Refunding RB, Charlestown Community Project, 6.25%, 1/01/21 (c)	\$ 1,520	\$ 1,776,181
		2,985,575
Massachusetts 2.1%		
Commonwealth of Massachusetts, GO, Series E, 3.00%, 4/01/44	2,035	1,851,545
Massachusetts Development Finance Agency, Refunding RB: Boston University, Series P, 5.45%, 5/15/59	1,165	1,411,025
Covanta Energy Project, Series C, AMT, 5.25%, 11/01/42 (a)	1,575	1,578,402
Massachusetts Health & Educational Facilities Authority, Refunding RB, Partners Healthcare System, Series J1, 5.00%, 7/01/39	255	270,376
		5,111,348
Michigan 3.5%		
City of Detroit Michigan Sewage Disposal System, Refunding RB, Senior Lien, Series A, 5.25%, 7/01/39	3,085	3,428,360
Kalamazoo Hospital Finance Authority, Refunding RB, Bronson Methodist Hospital: 5.50%, 5/15/20 (c)	530	593,324
5.50%, 5/15/36	425	464,899
Michigan Finance Authority, Refunding RB: Detroit Water & Sewage Department Project, Senior Lien, Series C-1, 5.00%, 7/01/44	630	684,779
Henry Ford Health System, 4.00%, 11/15/46	1,040	1,050,421
Michigan State Hospital Finance Authority, Refunding RB, Henry Ford Health System, 5.75%, 11/15/19 (c)	2,105	2,328,762
		8,550,545
Minnesota 0.9%		
City of Minneapolis Minnesota, Refunding RB, Fairview Health Services, Series A, 6.75%, 11/15/18 (c)	2,135	2,292,926

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	\$ 735,338
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	198,390
State of Missouri Health & Educational Facilities Authority, Refunding RB, St. Louis College of Pharmacy Project, 5.50%, 5/01/43	175	191,930
		390,320
Nebraska 1.0%		
Central Plains Energy Project Nebraska, RB, Gas Project No. 3, 5.25%, 9/01/37	575	632,431
County of Sarpy Nebraska Hospital Authority No. 1, Refunding RB, Nebraska Medicine, 4.00%, 5/15/51	1,755	1,796,752
		2,429,183
New Hampshire 1.4%		
New Hampshire Health & Education Facilities Authority, Refunding RB, Dartmouth-Hitchcock, 6.00%, 8/01/38	3,035	3,322,688
New Jersey 6.6%		
Casino Reinvestment Development Authority, Refunding RB: 5.25%, 11/01/39	735	754,544
5.25%, 11/01/44	1,095	1,116,725
County of Essex New Jersey Improvement Authority, RB, AMT, 5.25%, 7/01/45 (a)	775	779,534
New Jersey EDA, RB, Continental Airlines, Inc. Project, AMT: 5.13%, 9/15/23	1,410	1,525,028
5.25%, 9/15/29	1,365	1,485,720
New Jersey EDA, Refunding, Special Assessment Bonds, Kapkowski Road Landfill Project, 5.75%, 4/01/31	1,550	1,737,472
New Jersey State Turnpike Authority, RB: Series A, 5.00%, 1/01/43	1,925	2,161,505
Series E, 5.00%, 1/01/45	1,875	2,127,994
	Par (000)	Value
Municipal Bonds		
New Jersey (continued)		
New Jersey Transportation Trust Fund Authority, RB: Transportation Program, Series AA, 5.00%, 6/15/44	\$ 315	\$ 326,655
Transportation Program, Series AA, 5.00%, 6/15/44	580	599,018
Transportation System, Series A, 5.50%, 6/15/41	1,575	1,634,850
Transportation System, Series B, 5.25%, 6/15/36	1,705	1,770,745
		16,019,790
New York 7.6%		
City of New York New York Transitional Finance Authority Future Tax Secured, RB, Fiscal 2012, Sub-Series E-1, 5.00%, 2/01/42	310	348,127
Counties of New York Tobacco Trust IV, Refunding RB, Settlement Pass-Through Turbo, Series A, 6.25%, 6/01/41 (a)	1,300	1,336,894
County of Dutchess New York Industrial Development Agency, Refunding RB, Bard College Civic Facility, Series A-1, 5.00%, 8/01/46	1,800	1,521,522
County of Westchester New York Healthcare Corp., RB, Senior Lien, Series A, 5.00%, 11/01/44	237	254,500
Erie Tobacco Asset Securitization Corp., Refunding RB, Asset-Backed, Series A, 5.00%, 6/01/45	1,405	1,375,748
Hudson Yards Infrastructure Corp., Refunding RB, 2nd Indenture, Series A, 5.00%, 2/15/39	680	797,627
Long Island Power Authority, Refunding RB, Electric System, Series A, 5.75%, 4/01/39	1,450	1,547,179
Metropolitan Transportation Authority, RB, Series B, 5.25%, 11/15/38	1,715	2,015,931
Metropolitan Transportation Authority, Refunding RB, Dedicated Tax Fund, Series B, 5.00%, 11/15/19 (c)	1,740	1,900,306
Metropolitan Transportation Authority Hudson Rail Yards Trust Obligations, Refunding RB, Series A, 5.00%, 11/15/56	765	865,513

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Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par (000)	Value
Municipal Bonds		
New York (continued)		
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	\$ 921,086
3 World Trade Center Project, Class 1, 5.00%, 11/15/44 (a)	2,275	2,463,825
3 World Trade Center Project, Class 2, 5.15%, 11/15/34 (a)	245	269,142
3 World Trade Center Project, Class 2, 5.38%, 11/15/40 (a)	605	671,229
Port Authority of New York & New Jersey, ARB, Special Project, JFK International Air Terminal LLC Project, Series 8:		
6.00%, 12/01/36	900	1,011,258
6.00%, 12/01/42	875	980,971
		18,280,858
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	1,041,315
North Carolina Medical Care Commission, Refunding RB, 1st Mortgage, Retirement Facilities Whitestone Project, Series A, 7.75%, 3/01/41	415	457,064
		1,498,379
Ohio 0.6%		
County of Franklin Ohio, RB:		
Health Care Facilities Improvement, OPRS Communities Obligation Group, Series A, 6.13%, 7/01/40	470	521,235
Trinity Health Credit Group, Series 2017, 5.00%, 12/01/46	290	328,236
	Par (000)	Value
Municipal Bonds		
Ohio (continued)		
State of Ohio, RB, Portsmouth Bypass Project, AMT, 5.00%, 6/30/53	\$ 580	\$ 630,025
		1,479,496
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	494,449
Pennsylvania Economic Development Financing Authority, RB:		
American Water Co. Project, 6.20%, 4/01/39	2,520	2,714,393
Pennsylvania Bridge Finco LP, AMT, 5.00%, 6/30/42	2,015	2,238,222
Pennsylvania Economic Development Financing Authority, Refunding RB, National Gypsum Co., AMT, 5.50%, 11/01/44	1,105	1,185,698
Pennsylvania Turnpike Commission, RB, Series A, 5.00%, 12/01/44	795	890,050
		7,522,812
Puerto Rico 1.1%		
Children s Trust Fund, Refunding RB, Tobacco Settlement Asset-Backed Bonds:		
5.50%, 5/15/39	1,345	1,333,971
5.63%, 5/15/43	1,280	1,255,974
		2,589,945
Rhode Island 2.2%		
Tobacco Settlement Financing Corp., Refunding RB:		
Series A, 5.00%, 6/01/35	580	632,078
Series B, 4.50%, 6/01/45	1,900	1,912,369
Series B, 5.00%, 6/01/50	2,605	2,674,450
		5,218,897
South Carolina 3.6%		
State of South Carolina Ports Authority, RB:		
5.25%, 7/01/40	2,285	2,492,661
AMT, 5.25%, 7/01/55	925	1,039,866
State of South Carolina Public Service Authority, RB, Santee Cooper, Series A, 5.50%, 12/01/54	2,385	2,698,437

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par (000)	Value
Municipal Bonds		
South Carolina (continued)		
State of South Carolina Public Service Authority, Refunding RB, Series E, 5.25%, 12/01/55	\$ 2,260	\$ 2,527,245
		8,758,209
Tennessee 0.9%		
City of Chattanooga Health Educational & Housing Facility Board, RB, Catholic Health Initiatives, Series A, 5.25%, 1/01/45	980	1,035,674
County of Hardeman Tennessee Correctional Facilities Corp., RB, 7.75%, 8/01/17	525	525,000
Metropolitan Government of Nashville & Davidson County Health & Educational Facilities Board, RB, Vanderbilt University Medical Center, Series A, 5.00%, 7/01/40	495	559,533
		2,120,207
Texas 5.6%		
Central Texas Regional Mobility Authority, Refunding RB:		
Senior Lien, 6.25%, 1/01/21 (c)	1,480	1,730,534
Sub-Lien, 5.00%, 1/01/33	250	272,340
City of Austin Texas Airport System, ARB, Revenue, AMT, 5.00%, 11/15/39	440	493,231
City of Austin Texas Electric Utility Revenue, Refunding RB, Series A, 5.00%, 11/15/37	1,500	1,671,270
City of Dallas Texas Waterworks & Sewer System Revenue, Refunding RB, 5.00%, 10/01/20 (c)	485	543,782
City of Houston Texas Airport System, Refunding ARB, Senior Lien, Series A, 5.50%, 7/01/39	1,070	1,112,458
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	419,026
County of Harris Texas Health Facilities Development Corp., Refunding RB, Memorial Hermann Healthcare System, Series B, 7.25%, 12/01/18 (c)	1,910	2,069,943
	Par (000)	Value
Municipal Bonds		
Texas (continued)		
La Vernia Higher Education Finance Corp., RB, Kipp, Inc., Series A, 6.38%, 8/15/19 (c)	\$ 450	\$ 497,804
North Texas Tollway Authority, RB, CAB, Special Project System, Series B, 0.00%, 9/01/37 (b)	1,400	555,982
Texas Private Activity Bond Surface Transportation Corp., RB, Senior Lien:		
LBJ Infrastructure Group LLC, 7.00%, 6/30/40	2,000	2,274,040
NTE Mobility Partners LLC, North Tarrant Express Managed Lanes Project, 6.88%, 12/31/39	1,700	1,902,283
		13,542,693
Utah 0.3%		
Salt Lake City Corp. Airport Revenue, ARB, Series A, AMT, 5.00%, 7/01/47	665	761,146
Virginia 1.8%		
County of Hanover Virginia EDA, Refunding RB, Covenant Woods, Series A:		
5.00%, 7/01/42	625	634,219
Residential Care Facility, 5.00%, 7/01/47	970	982,183
Virginia Small Business Financing Authority, RB, Senior Lien, Elizabeth River Crossings OpCo LLC Project, AMT:		
5.25%, 1/01/32	550	609,614
6.00%, 1/01/37	1,830	2,073,811
		4,299,827
Washington 3.7%		
Central Puget Sound Regional Transit Authority, RB, Series A (AGM), 5.00%, 11/01/17 (c)	1,340	1,354,003
Grant County Public Utility District No. 2, Refunding RB, Series A, 5.00%, 1/01/43	1,555	1,769,901
Port of Seattle Washington, RB, Series C, AMT:		
5.00%, 4/01/40	540	603,250
5.00%, 5/01/42 (e)	1,085	1,244,636
State of Washington, GO, Series D, 5.00%, 2/01/42	1,890	2,219,238

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Par (000)	Value
Municipal Bonds		
Washington (continued)		
Washington Health Care Facilities Authority, RB, Catholic Health Initiatives, Series A, 5.75%, 1/01/45	\$ 1,625	\$ 1,788,768
		8,979,796
Wisconsin 3.6%		
State of Wisconsin, Refunding RB, Series A, 6.00%, 5/01/19 (c)	4,980	5,415,650
State of Wisconsin Health & Educational Facilities Authority, RB, Ascension Health Senior Credit Group, Series E, 5.00%, 11/15/33	1,710	1,844,577
Wisconsin Health & Educational Facilities Authority, Refunding RB, Medical College of Wisconsin, Inc., 4.00%, 12/01/46	1,305	1,345,703
		8,605,930
Wyoming 0.1%		
Wyoming Municipal Power Agency, Inc., RB, Series A, 5.00%, 1/01/19 (c)	210	222,031
Total Municipal Bonds 111.6%		270,071,066
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	1,287,808
California 8.8%		
Bay Area Toll Authority, Refunding RB, San Francisco Bay Area, Series F-1, 5.63%, 4/01/19 (c)	2,270	2,447,690
California Educational Facilities Authority, RB, University of Southern California, Series B, 5.25%, 10/01/18 (c)(g)	1,845	1,939,021
City & County of San Francisco California Public Utilities Commission, RB, Water Revenue, Series B, 5.00%, 11/01/19 (c)	6,600	7,196,640
City of Los Angeles California Department of Airports, Refunding ARB, Los Angeles International Airport, Senior Series A, 5.00%, 5/15/40	4,121	4,533,580
Municipal Bonds Transferred to Tender Option Bond Trusts (f)		
California (continued)		
Los Angeles Community College District California, GO, Election of 2001, Series A (AGM), 5.00%, 8/01/17 (c)	\$ 1,620	\$ 1,620,000
Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment District No.2, Series A, 5.00%, 10/01/47	2,250	2,619,252
San Diego Community College District California, GO, Election of 2002, 5.25%, 8/01/19 (c)	748	811,913
		21,168,096
Colorado 3.6%		
Colorado Health Facilities Authority, RB, Catholic Health (AGM) (c):		
Series C-3, 5.10%, 4/29/18	2,580	2,660,986
Series C-7, 5.00%, 5/01/18	1,650	1,700,935
Colorado Health Facilities Authority, Refunding RB, Catholic Health Initiatives, Series A, 5.50%, 7/01/34 (g)	1,490	1,547,924
County of Adams Colorado, COP, Refunding, 4.00%, 12/01/45	2,700	2,804,679
		8,714,524
Florida 1.8%		
County of Miami-Dade Florida, RB, Water & Sewer System, 5.00%, 10/01/34	3,939	4,363,838
Georgia 1.0%		
Private Colleges & Universities Authority, Refunding RB, Emory University, Series C, 5.00%, 9/01/18 (c)	2,259	2,359,667
Massachusetts 2.1%		
Massachusetts School Building Authority, RB, Senior, Series B, 5.00%, 10/15/41	4,502	5,095,821
New Hampshire 0.6%		
New Hampshire Health & Education Facilities Authority, RB, Dartmouth College, 5.25%, 6/01/19 (c)(g)	1,410	1,519,667

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

Municipal Bonds Transferred to Tender Option Bond Trusts (f)	Par (000)	Value
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	\$ 1,197,579
Hudson Yards Infrastructure Corp., RB, Fiscal 2012, Series A, 5.75%, 2/15/47 (g)	1,110	1,282,813
Metropolitan Transportation Authority, Refunding RB, Series C-1, 5.25%, 11/15/56	3,240	3,772,098
New York Liberty Development Corp., RB, 1 World Trade Center Port Authority Consolidated Bonds, 5.25%, 12/15/43	7,440	8,433,726
New York Liberty Development Corp., Refunding RB, 4 World Trade Center Project, 5.75%, 11/15/51 (g)	4,460	5,148,220
Port Authority of New York & New Jersey, Refunding ARB, 194th Series, 5.25%, 10/15/55	1,860	2,163,626
		21,998,062
North Carolina 1.3%		
North Carolina Capital Facilities Finance Agency, Refunding RB:		
Duke University Project, Series B, 5.00%, 10/01/55	1,830	2,091,855
Wake Forest University, 5.00%, 1/01/19 (c)	1,080	1,141,549
		3,233,404
Ohio 4.2%		
State of Ohio, Refunding RB, Cleveland Clinic Health System Obligated Group, Series A, 5.50%, 1/01/39	9,644	10,210,062
Pennsylvania 0.8%		
Pennsylvania Turnpike Commission, RB, Sub-Series A, 5.50%, 12/01/42	1,695	2,008,829
Texas 6.1%		
City of San Antonio Texas Public Service Board, RB, Electric & Gas Systems, Junior Lien, 5.00%, 2/01/43	1,720	1,953,885
County of Harris Texas, RB, Toll Road, Senior Lien, Series A:		
5.00%, 8/15/19 (c)(g)	2,620	2,809,999
5.00%, 8/15/38	2,004	2,149,406
Municipal Bonds Transferred to Tender Option Bond Trusts (f)	Par (000)	Value
Texas (continued)		
County of Harris Texas Metropolitan Transit Authority, Refunding RB, Series A, 5.00%, 11/01/41	\$ 2,350	\$ 2,642,434
University of Texas, Refunding RB, Financing System, Series B, 5.00%, 8/15/43	2,041	2,314,971
University of Texas, Permanent University Fund, Refunding RB, Series B, 4.00%, 7/01/41	2,720	2,929,168
		14,799,863
Utah 1.1%		
City of Riverton Utah, RB, IHC Health Services, Inc., 5.00%, 8/15/41	2,519	2,677,884
Virginia 2.6%		
University of Virginia, Refunding RB, GO, 5.00%, 6/01/18 (c)	3,749	3,877,817
Virginia Small Business Financing Authority, Refunding RB, Sentara Healthcare, 5.00%, 11/01/40	2,095	2,262,992
		6,140,809
Wisconsin 1.8%		
Wisconsin Health & Educational Facilities Authority, Refunding RB, Froedtert & Community Health, Inc., Obligated Group, Series C, 5.25%, 4/01/19 (c)(g)	3,959	4,238,142
Total Municipal Bonds Transferred to Tender Option Bond Trusts 45.4%		109,816,476
Total Long-Term Investments (Cost \$349,611,564) 157.0%		379,887,542
Short-Term Securities	Shares	
BlackRock Liquidity Funds, MuniCash, Institutional Class, 0.64% (h)(i)	7,153,275	7,156,136
Total Short-Term Securities (Cost \$7,155,528) 2.9%		7,156,136

BLACKROCK MUNIHOLDINGS FUND, INC.

JULY 31, 2017

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Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

	Value
Total Investments (Cost \$356,767,092*) 159.9%	\$ 387,043,678
Other Assets Less Liabilities 0.5%	1,053,612
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable (25.8)%	(62,342,854)
VMTP Shares at Liquidation Value (34.6)%	(83,700,000)
Net Assets Applicable to Common Shares 100.0%	\$ 242,054,436

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

Tax cost	\$ 294,867,480
Gross unrealized appreciation	\$ 31,226,834
Gross unrealized depreciation	(1,283,934)
Net unrealized appreciation	\$ 29,942,900

Notes to Schedule of Investments

- (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 expires between May 7, 2018 to February 15, 2031, is \$11,675,108.
- (h) During the period ended July 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,	Net Activity	Shares Held at July 31, 2017	Value at July 31, 2017	Income	Net Realized Gain	Change in Unrealized Appreciation
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	2017						(Depreciation)	
BlackRock Liquidity Funds, MuniCash, Institutional Class	575,572	6,577,703	7,153,275	\$ 7,156,136	\$ 4,364	\$ 387	\$	551

(i) Current yield as of period end.

Derivative Financial Instruments Outstanding as of Period End

Futures Contracts

Description	Number of Contracts	Expiration Date	Notional Amount (000)	Unrealized Appreciation (Depreciation)
Short Contracts				
5-Year U.S. Treasury Note	(19)	September 2017	\$ 2,245	\$ (202)
10-Year U.S. Treasury Note	(38)	September 2017	\$ 4,784	995
Long U.S. Treasury Bond	(37)	September 2017	\$ 5,660	(15,083)
Ultra U.S. Treasury Bond	(16)	September 2017	\$ 2,632	(21,732)
Total				\$ (36,022)

Schedule of Investments (continued)

BlackRock MuniHoldings Fund, Inc. (MHD)

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
S/F	Single-Family

BLACKROCK MUNIHOLDINGS FUND, INC.

JULY 31, 2017

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

Changes in valuation techniques may result in transfers into or out of an assigned level within the hierarchy. In accordance with the 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 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		\$ 379,887,542		\$ 379,887,542
Short-Term Securities	\$ 7,156,136			7,156,136
Total	\$ 7,156,136	\$ 379,887,542		\$ 387,043,678
Derivative Financial Instruments²				
Assets:				
Interest rate contracts	\$ 995			\$ 995
Liabilities:				
Interest rate contracts	(37,017)			(37,017)
Total	\$ (36,022)			\$ (36,022)

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

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		\$ (62,233,298)		\$ (62,233,298)
VMTP Shares at Liquidation Value		(83,700,000)		(83,700,000)
Total		\$ (145,933,298)		\$ (145,933,298)

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

BLACKROCK MUNIHOLDINGS FUND, INC.

JULY 31, 2017

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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, 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: September 25, 2017

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

BlackRock MuniHoldings Fund, Inc.

Date: September 25, 2017