

BLACKROCK MUNIASSETS FUND, INC.
 Form N-Q
 April 27, 2009

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 811-07642

Name of Fund: BlackRock MuniAssets Fund, Inc. (MUA)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: Donald C. Burke, Chief Executive Officer, BlackRock
 MuniAssets Fund, Inc., 800 Scudders Mill Road, Plainsboro, NJ 08536. Mailing address:
 P.O. Box 9011, Princeton, NJ 08543-9011

Registrant's telephone number, including area code: (800) 882-0052, Option 4

Date of fiscal year end: 05/31/2009

Date of reporting period: 02/28/2009

Item 1 Schedule of Investments

BlackRock MuniAssets Fund, Inc.

Schedule of Investments February 28, 2009 (Unaudited)

(Percentages shown are based on Net
 Assets)

State	Municipal Bonds	Par (000)	Value
Alabama - 0.6%	Jefferson County, Alabama, Limited Obligation School Warrants, Series A, 5%, 1/01/10	\$ 685	\$ 603,273
	Tuscaloosa, Alabama, Special Care Facilities Financing Authority, Residential Care Facility Revenue Bonds (Capstone Village, Inc. Project), Series A, 5.875%, 8/01/36 (a)(b)	1,820	785,676
			1,388,949
Alaska - 0.3%	Alaska Industrial Development and Export Authority Revenue Bonds (Williams Lynxs Alaska Cargoport), AMT, 7.80%, 5/01/14	770	717,563

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Arizona - 7.5%

Coconino County, Arizona, Pollution Control Corporation Revenue Refunding Bonds (Tucson Electric Power - Navajo), AMT, Series A, 7.125%, 10/01/32	3,000	2,587,860
Coconino County, Arizona, Pollution Control Corporation Revenue Refunding Bonds (Tucson Electric Power - Navajo), Series B, 7%, 10/01/32	2,500	2,281,750
Maricopa County, Arizona, IDA, Education Revenue Bonds (Arizona Charter Schools Project 1), Series A, 6.625%, 7/01/20	1,625	1,218,961
Maricopa County, Arizona, IDA, M/F Housing Revenue Bonds (Sun King Apartments Project), Series A, 6.75%, 5/01/31	1,615	1,119,631
Phoenix, Arizona, IDA, Airport Facility, Revenue Refunding Bonds (America West Airlines, Inc. Project), AMT, 6.30%, 4/01/23	4,800	2,821,056
Pima County, Arizona, IDA, Education Revenue Bonds (Arizona Charter Schools Project), Series E, 7.25%, 7/01/31	1,375	1,148,799
Pima County, Arizona, IDA, Education Revenue Refunding Bonds (Arizona Charter Schools Project), Series O, 5.25%, 7/01/31	500	320,065
Pima County, Arizona, IDA, Education Revenue Refunding Bonds (Arizona Charter Schools Project II), Series A, 6.75%, 7/01/11 (c)	415	464,995
Pima County, Arizona, IDA, Education Revenue Refunding Bonds (Arizona Charter Schools Project II), Series A, 6.75%, 7/01/31	675	530,550
Salt Verde Financial Corporation, Arizona, Senior Gas Revenue Bonds, 5%, 12/01/32	2,840	1,869,742

Portfolio Abbreviations

To simplify the listings of portfolio holdings in the Schedule of Investments, the names and descriptions of many of the securities have been abbreviated according to the list below.

AMT	Alternative Minimum Tax (subject to)	IDR	Industrial Development Revenue Bonds
CABS	Capital Appreciation Bonds		
EDA	Economic Development Authority	M/F	Multi-Family
GO	General Obligation Bonds	PCR	Pollution Control Revenue Bonds
HDA	Housing Development Authority	S/F	Single-Family
IDA	Industrial Development Authority		

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	Salt Verde Financial Corporation, Arizona, Senior Gas Revenue Bonds, 5%, 12/01/37	\$ 1,850	\$ 1,186,553
	Show Low, Arizona, Improvement District Number 5, Special Assessment Bonds, 6.375%, 1/01/15	865	811,370
			16,361,332
California - 3.7%	California State Various Purpose, GO, 5.25%, 11/01/25	1,900	1,901,558
	Fontana, California, Special Tax, Refunding (Community Facilities District Number 22 - Sierra), 6%, 9/01/34	1,320	978,173
	San Jose, California, Airport Revenue Refunding Bonds, AMT, Series A, 5.50%, 3/01/32 (d)	4,290	3,721,790
	Southern California Public Power Authority, Natural Gas Project Number 1 Revenue Bonds, Series A, 5%, 11/01/29	2,085	1,357,669
			7,959,190
Colorado - 4.8%	Colorado Health Facilities Authority, Revenue Refunding Bonds (Christian Living Communities Project), Series A, 5.75%, 1/01/26	650	490,893
	Denver, Colorado, City and County Airport Revenue Bonds, AMT, Series D, 7.75%, 11/15/13 (d)	1,540	1,669,545
	Elk Valley, Colorado, Public Improvement Revenue Bonds (Public Improvement Fee), Series A, 7.10%, 9/01/14	1,410	1,387,623
	Elk Valley, Colorado, Public Improvement Revenue Bonds (Public Improvement Fee), Series A, 7.30%, 9/01/22	2,095	1,823,823
	Elk Valley, Colorado, Public Improvement Revenue Bonds (Public Improvement Fee), Series B, 7.45%, 9/01/31	260	205,993
	North Range Metropolitan District Number 1, Colorado, GO, 7.25%, 12/15/11 (c)	1,760	2,011,944
	Plaza Metropolitan District Number 1, Colorado, Tax Allocation Revenue Bonds (Public Improvement Fees), 8%, 12/01/25	2,850	2,416,771
	Plaza Metropolitan District Number 1, Colorado, Tax Allocation Revenue Bonds (Public Improvement Fees), 8.125%, 12/01/25	525	432,085
			10,438,677
Connecticut - 1.8%	Connecticut State Development Authority, Airport Facility Revenue Bonds (Learjet, Inc. Project), AMT, 7.95%, 4/01/26	680	583,277
	Connecticut State Development Authority, IDR (AFCO Cargo BDL-LLC Project), AMT, 8%, 4/01/30	3,490	2,956,693
	Mashantucket Western Pequot Tribe, Connecticut, Revenue Refunding Bonds, Sub-Series A, 5.50%, 9/01/36	885	431,880
			3,971,850
Florida - 10.1%	Capital Region Community Development District, Florida,		

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Special Assessment Revenue Bonds, Series A, 7%, 5/01/39 Greater Orlando Aviation Authority, Florida, Airport Facilities Revenue Bonds (JetBlue Airways Corp.), AMT, 6.375%, 11/15/26	945 1,180	659,846 750,256
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BlackRock MuniAssets Fund, Inc.

(Percentages shown are based on Net Assets)

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State	Municipal Bonds	Par (000)	Value
	Halifax Hospital Medical Center, Florida, Hospital Revenue Refunding Bonds, Series A, 5%, 6/01/38	\$ 1,160	\$ 801,699
	Harbor Bay, Florida, Community Development District, Capital Improvement Special Assessment Revenue Bonds, Series A, 7%, 5/01/33	490	446,091
	Hillsborough County, Florida, IDA, Exempt Facilities Revenue Bonds (National Gypsum Company), AMT, Series A, 7.125%, 4/01/30	2,000	1,098,180
	Hillsborough County, Florida, IDA, Exempt Facilities Revenue Bonds (National Gypsum Company), AMT, Series B, 7.125%, 4/01/30	1,540	845,599
	Hillsborough County, Florida, IDA, Hospital Revenue Bonds (Tampa General Hospital Project), 5%, 10/01/36	4,170	2,976,838
	Jacksonville, Florida, Economic Development Commission, Health Care Facilities, Revenue Refunding Bonds (Florida Proton Therapy Institute), Series A, 6%, 9/01/17	920	777,685
	Jacksonville, Florida, Economic Development Commission, IDR (Gerdau Ameristeel US, Inc.), AMT, 5.30%, 5/01/37	1,300	581,698
	Lee County, Florida, IDA, IDR (Lee Charter Foundation), Series A, 5.375%, 6/15/37	2,620	1,447,105
	Midtown Miami, Florida, Community Development District, Special Assessment Revenue Bonds, Series A, 6.25%, 5/01/37	3,255	2,052,082
	Orlando, Florida, Urban Community Development District, Capital Improvement Special Assessment Bonds, Series A, 6.95%, 5/01/11 (c)	2,245	2,491,074
	Santa Rosa Bay Bridge Authority, Florida, Revenue Bonds, 6.25%, 7/01/28	3,040	2,045,373
	Sarasota County, Florida, Health Facilities Authority, Retirement Facility Revenue Refunding Bonds (Village on the Isle Project), 5.50%, 1/01/27	860	535,694
	Sarasota County, Florida, Health Facilities Authority, Retirement Facility Revenue Refunding Bonds (Village on the Isle Project), 5.50%, 1/01/32	795	457,713
	Sumter Landing Community Development District, Florida, Recreational Revenue Bonds, Sub-Series B, 5.70%, 10/01/38	2,405	1,476,189
	Tolomato Community Development District, Florida, Special		

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Assessment Bonds, 6.65%, 5/01/40	2,680	1,696,386
Waterchase, Florida, Community Development District, Capital Improvement Revenue Bonds, Series A, 6.70%, 5/01/11 (c)	895	988,277
		<u>22,127,785</u>

Georgia - 2.0%

Atlanta, Georgia, Tax Allocation Bonds (Princeton Lakes Project), 5.50%, 1/01/31	640	419,904
Clayton County, Georgia, Tax Allocation Bonds (Ellenwood Project), 7.50%, 7/01/33	2,375	1,980,892

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State	Municipal Bonds	Par (000)	Value
	Main Street Natural Gas, Inc., Georgia, Gas Project Revenue Bonds, Series A, 6.375%, 7/15/38 (a)(b)	\$ 940	\$ 282,000
	Rockdale County, Georgia, Development Authority Revenue Bonds (Visy Paper Project), AMT, Series A, 6.125%, 1/01/34	2,435	1,583,188
			<u>4,265,984</u>
Illinois - 5.3%	Chicago, Illinois, O'Hare International Airport, Special Facility Revenue Refunding Bonds (American Airlines, Inc. Project), 5.50%, 12/01/30	4,140	1,792,993
	Illinois State Finance Authority Revenue Bonds (Clare At Water Tower Project), Series A, 6.125%, 5/15/38	2,950	1,637,869
	Illinois State Finance Authority Revenue Bonds (Landing At Plymouth Place Project), Series A, 6%, 5/15/37	600	363,054
	Illinois State Finance Authority Revenue Bonds (Monarch Landing, Inc. Project), Series A, 7%, 12/01/37	820	557,182
	Illinois State Finance Authority Revenue Bonds (Primary Health Care Centers Program), 6.60%, 7/01/24	685	504,687
	Illinois State Finance Authority Revenue Bonds (Rush University Medical Center Obligated Group Project), Series A, 7.25%, 11/01/38	2,355	2,377,443
	Illinois State Finance Authority Revenue Bonds (Rush University Medical Center Obligated Group Project), Series B, 7.25%, 11/01/30	1,170	1,194,266
	Lincolnshire, Illinois, Special Service Area Number 1, Special Tax Bonds (Sedgebrook Project), 6.25%, 3/01/34	1,070	668,472
	Lombard, Illinois, Public Facilities Corporation, First Tier		

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	Revenue Bonds (Conference Center and Hotel), Series A-1, 7.125%, 1/01/36	2,600	1,746,030
	Village of Wheeling, Illinois, Revenue Bonds (North Milwaukee/Lake-Cook Tax Increment Financing (TIF) Redevelopment Project), 6%, 1/01/25	825	610,789
			11,452,785
Indiana - 0.8%	Vanderburgh County, Indiana, Redevelopment Commission, Redevelopment District Tax Allocation Bonds, 5.25%, 2/01/31	1,200	932,904
	Vigo County, Indiana, Hospital Authority Revenue Bonds (Union Hospital, Inc.), 5.70%, 9/01/37	615	398,600
	Vigo County, Indiana, Hospital Authority Revenue Bonds (Union Hospital, Inc.), 5.75%, 9/01/42	765	480,068
			1,811,572
Iowa - 1.2%	Iowa Finance Authority, Health Care Facilities, Revenue Refunding Bonds (Care Initiatives Project), 9.25%, 7/01/11 (c)	2,165	2,564,421
Kansas - 0.1%	Wyandotte County, Kansas, Kansas City Unified Government Revenue Refunding Bonds (General Motors Corporation Project), 6%, 6/01/25	1,770	256,650

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State	Municipal Bonds	Par (000)	Value
Louisiana - 2.6%	Louisiana Local Government Environmental Facilities and Community Development Authority Revenue Bonds (Westlake Chemical Corporation), 6.75%, 11/01/32	\$ 3,000	\$ 1,976,670
	Louisiana Public Facilities Authority, Hospital Revenue Bonds (Franciscan Missionaries of Our Lady Health System, Inc.), Series A, 5.25%, 8/15/36	1,870	1,529,473
	Saint John Baptist Parish, Louisiana, Revenue Bonds (Marathon Oil Corporation), Series A, 5.125%, 6/01/37	2,950	2,156,362
			5,662,505
Maryland - 1.4%	Maryland State Economic Development Corporation Revenue Refunding Bonds (Baltimore Association for Retarded		

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	Citizens- Health and Mental Hygiene Program), Series A, 7.75%, 3/01/25	1,815	1,664,555
	Maryland State Energy Financing Administration, Limited Obligation Revenue Bonds (Cogeneration-AES Warrior Run), AMT, 7.40%, 9/01/19	1,500	1,124,715
	Maryland State Health and Higher Educational Facilities Authority Revenue Bonds (Washington Christian Academy), 5.50%, 7/01/38	590	301,903
			<u>3,091,173</u>
Massachusetts - 1.7%	Massachusetts State Health and Educational Facilities Authority Revenue Bonds (Jordan Hospital), Series E, 6.75%, 10/01/33	1,150	823,549
	Massachusetts State Health and Educational Facilities Authority, Revenue Refunding Bonds (Bay Cove Human Services Issue), Series A, 5.90%, 4/01/28	1,945	1,351,697
	Massachusetts State Port Authority, Special Facilities Revenue Bonds (Delta Air Lines, Inc. Project), AMT, Series A, 5.50%, 1/01/19 (d)	2,400	1,502,112
			<u>3,677,358</u>
Michigan - 3.4%	Advanced Technology Academy, Michigan, Revenue Bonds, 6%, 11/01/37	900	621,855
	Macomb County, Michigan, Hospital Finance Authority, Hospital Revenue Bonds (Mount Clemens General Hospital), Series B, 5.875%, 11/15/13 (c)	1,635	1,915,550
	Monroe County, Michigan, Hospital Financing Authority, Hospital Revenue Refunding Bonds (Mercy Memorial Hospital Corporation), 5.50%, 6/01/35	1,740	999,752
	Royal Oak, Michigan, Hospital Finance Authority, Hospital Revenue Refunding Bonds (William Beaumont Hospital), 8.25%, 9/01/39	3,735	3,959,474
			<u>7,496,631</u>
Minnesota - 0.9%	Minneapolis, Minnesota, Health Care System Revenue Refunding Bonds (Fairview Health Services), Series A, 6.75%, 11/15/32	1,785	1,860,916

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State	Municipal Bonds	Par (000)	Value	
Missouri - 0.3%	Kansas City, Missouri, IDA, First Mortgage Health Facilities Revenue Bonds (Bishop Spencer Place), Series A, 6.50%, 1/01/35	\$ 1,000	\$ 668,710	
	Clark County, Nevada, IDR (Nevada Power Company Project), AMT, Series A, 5.60%, 10/01/30	1,380	939,352	
Nevada - 0.6%	Clark County, Nevada, Improvement District Number 142, Special Assessment Bonds, 6.375%, 8/01/23	630	453,846	
			1,393,198	
New Hampshire - 0.3%	New Hampshire Health and Education Facilities Authority, Hospital Revenue Bonds (Catholic Medical Center), 5%, 7/01/36	1,165	729,325	
New Jersey - 10.4%	Camden County, New Jersey, Pollution Control Financing Authority, Solid Waste Resource Recovery, Revenue Refunding Bonds, AMT, Series A, 7.50%, 12/01/10	9,000	9,014,310	
	Camden County, New Jersey, Pollution Control Financing Authority, Solid Waste Resource Recovery, Revenue Refunding Bonds, AMT, Series B, 7.50%, 12/01/09	125	125,251	
	New Jersey EDA, Cigarette Tax Revenue Bonds, 5.50%, 6/15/24	3,065	2,397,504	
	New Jersey EDA, IDR, Refunding (Newark Airport Marriott Hotel), 7%, 10/01/14	2,500	2,240,200	
	New Jersey EDA, Retirement Community Revenue Bonds (Cedar Crest Village, Inc. Facility), Series A, 7.25%, 11/15/11 (c)	1,665	1,892,672	
	New Jersey EDA, Special Facility Revenue Bonds (Continental Airlines, Inc. Project), AMT, 6.25%, 9/15/19	2,000	1,475,620	
	New Jersey EDA, Special Facility Revenue Bonds (Continental Airlines, Inc. Project), AMT, 6.25%, 9/15/29	3,330	2,146,451	
	New Jersey EDA, Special Facility Revenue Bonds (Continental Airlines, Inc. Project), AMT, 9%, 6/01/33	1,250	1,062,187	
	New Jersey Health Care Facilities Financing Authority Revenue Bonds (Pascack Valley Hospital Association), 6.625%, 7/01/36 (a)(b)	2,000	62,400	
	New Jersey Health Care Facilities Financing Authority, Revenue Refunding Bonds (Saint Joseph's Healthcare System), 6.625%, 7/01/38	2,410	1,740,719	
	New Jersey State Transportation Trust Fund Authority, Transportation System Revenue Bonds, CABS, Series C,			

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	5.048%, 12/15/35 (d)(e)	3,450	629,418
			22,786,732
New Mexico - 1.1%	Farmington, New Mexico, PCR, Refunding (Tucson Electric Power Company - San Juan Project), Series A, 6.95%, 10/01/20	2,500	2,470,475
New York - 6.0%	Dutchess County, New York, IDA, Civic Facility Revenue Refunding Bonds (Saint Francis Hospital), Series A, 7.50%, 3/01/29	1,400	1,261,834

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State	Municipal Bonds	Par (000)	Value
	Metropolitan Transportation Authority, New York, Revenue Bonds, Series C, 6.50%, 11/15/28	\$ 3,685	\$ 4,056,780
	New York City, New York, City IDA, Civic Facility Revenue Bonds, Series C, 6.80%, 6/01/28	510	489,355
	New York City, New York, City IDA, Civic Facility Revenue Bonds (Special Needs Facilities Pooled Program), Series C-1, 6.625%, 7/01/29	1,515	1,149,779
	New York City, New York, City IDA, Special Facility Revenue Bonds (American Airlines, Inc. - JFK International Airport), AMT, 8%, 8/01/28	1,045	802,205
	New York City, New York, City IDA, Special Facility Revenue Bonds (British Airways Plc Project), AMT, 7.625%, 12/01/32	2,400	1,705,728
	New York Liberty Development Corporation Revenue Bonds (National Sports Museum Project), Series A, 6.125%, 2/15/19	870	870
	New York State Dormitory Authority, Non-State Supported Debt, Revenue Refunding Bonds (Mount Sinai-NYU Medical Center Health System), Series C, 5.50%, 7/01/26	1,470	1,348,299
	New York State Dormitory Authority, Non-State Supported Debt, Revenue Refunding Bonds (New York University Hospital Center), Series A, 5%, 7/01/20	2,960	2,179,892
	Westchester County, New York, IDA, Continuing Care Retirement, Mortgage Revenue Bonds (Kendal on Hudson Project), Series A, 6.50%, 1/01/13 (c)	100	118,156
			13,112,898
North Carolina - 1.7%	North Carolina Medical Care Commission, Health Care		

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	Facilities, First Mortgage Revenue Refunding Bonds (Deerfield Episcopal Project), Series A, 6.125%, 11/01/38	2,335	1,785,761
	North Carolina Medical Care Commission, Retirement Facilities, First Mortgage Revenue Bonds (Givens Estates Project), Series A, 6.50%, 7/01/13 (c)	1,500	1,792,545
			<u>3,578,306</u>
Ohio - 1.9%	Buckeye Tobacco Settlement Financing Authority, Ohio, Tobacco Settlement Asset-Backed Bonds, Series A-2, 5.125%, 6/01/24	2,390	1,738,080
	Buckeye Tobacco Settlement Financing Authority, Ohio, Tobacco Settlement Asset-Backed Bonds, Series A-2, 6.50%, 6/01/47	3,935	2,457,880
			<u>4,195,960</u>
Oklahoma - 0.4%	Tulsa County, Oklahoma, Home Finance Authority, S/F Mortgage Revenue Refunding Bonds, AMT, Series C, 5.25%, 12/01/38 (f)	972	831,488
Pennsylvania - 7.9%	Allegheny County, Pennsylvania, Hospital Development Authority, Revenue Refunding Bonds (West Penn Allegheny Health System), Series A, 5.375%, 11/15/40	3,015	1,621,859
	Bucks County, Pennsylvania, IDA, Retirement Community Revenue Bonds (Ann's Choice, Inc.), Series A, 6.125%,	200	143,832

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State	Municipal Bonds	Par (000)	Value
	Bucks County, Pennsylvania, IDA, Retirement Community Revenue Bonds (Ann's Choice, Inc.), Series A, 6.25%, 1/01/35	\$ 1,550	\$ 1,032,532
	Harrisburg, Pennsylvania, Authority, University Revenue Bonds (Harrisburg University of Science), Series B, 6%, 9/01/36	900	677,214
	Lancaster County, Pennsylvania, Hospital Authority Revenue Bonds (Brethren Village Project), Series A, 6.25%, 7/01/26	685	569,591
	Lancaster County, Pennsylvania, Hospital Authority Revenue Bonds (Brethren Village Project), Series A, 6.50%, 7/01/40	590	456,135
	Montgomery County, Pennsylvania, IDA, Revenue Bonds (Whitemarsh Continuing Care Project), 6.125%, 2/01/28	2,330	1,498,866
	Pennsylvania Economic Development Financing Authority, Exempt Facilities Revenue Bonds (National Gypsum		

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	Company), AMT, Series A, 6.25%, 11/01/27	3,250	1,728,220
	Pennsylvania Economic Development Financing Authority, Exempt Facilities Revenue Bonds (Reliant Energy), AMT, Series B, 6.75%, 12/01/36	2,810	2,227,037
	Philadelphia, Pennsylvania, Authority for IDR (Air Cargo), AMT, Series A, 7.50%, 1/01/25	2,270	1,859,289
	Philadelphia, Pennsylvania, Authority for IDR, Commercial Development, 7.75%, 12/01/17	6,440	5,469,234
			17,283,809
Rhode Island - 0.8%	Central Falls, Rhode Island, Detention Facility Corporation, Revenue Refunding Bonds, 7.25%, 7/15/35	2,495	1,686,795
South Carolina - 0.4%	Connector 2000 Association, Inc., South Carolina, Toll Road and Capital Appreciation Revenue Bonds, Senior-Series B, 8.661%, 1/01/14 (e)	1,485	802,360
Tennessee - 1.2%	Knox County, Tennessee, Health, Educational and Housing Facilities Board, Hospital Facilities Revenue Refunding Bonds (Covenant Health), Series A, 5.058%, 1/01/40 (e)	6,785	536,829
	Shelby County, Tennessee, Health, Educational and Housing Facilities Board Revenue Bonds (Germantown Village), 6.25%, 12/01/34	355	228,723
	Shelby County, Tennessee, Health, Educational and Housing Facilities Board Revenue Bonds (Germantown Village), Series A, 7.25%, 12/01/34	2,500	1,838,250
			2,603,802
Texas - 4.9%	Brazos River Authority, Texas, PCR, Refunding (TXU Energy Company LLC Project), AMT, Series A, 7.70%, 4/01/33	2,550	1,402,500
	Brazos River Authority, Texas, PCR, Refunding (TXU Energy Company Project), AMT, Series C, 5.75%, 5/01/36	2,885	1,965,926
	Harris County, Texas, Health Facilities Development Corporation, Hospital Revenue Refunding Bonds (Memorial Hermann Healthcare System), Series B, 7.125%, 12/01/31	1,500	1,565,670

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State	Municipal Bonds	Par (000)	Value
	Houston, Texas, Airport System, Special Facilities Revenue Bonds (Continental Airlines), AMT, Series E, 6.75%, 7/01/21	\$ 2,685	\$ 2,034,612

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	North Texas Tollway Authority, System Revenue Refunding Bonds, Second Tier, Series F, 6.125%, 1/01/31	3,675	3,628,915
			10,597,623
Utah - 0.8%	Carbon County, Utah, Solid Waste Disposal, Revenue Refunding Bonds (Laidlaw Environmental), AMT, Series A, 7.45%, 7/01/17	1,660	1,654,671
Virginia - 1.3%	Dulles Town Center, Virginia, Community Development Authority, Special Assessment Tax (Dulles Town Center Project), 6.25%, 3/01/26	1,455	1,030,504
	Fairfax County, Virginia, EDA, Residential Care Facilities, Mortgage Revenue Refunding Bonds (Goodwin House, Inc.), 5.125%, 10/01/37	750	488,775
	Fairfax County, Virginia, EDA, Residential Care Facilities, Mortgage Revenue Refunding Bonds (Goodwin House, Inc.), 5.125%, 10/01/42	450	286,605
	Lexington, Virginia, IDA, Residential Care Facility, Mortgage Revenue Refunding Bonds (Kendal at Lexington), Series A, 5.375%, 1/01/28	540	360,823
	Tobacco Settlement Financing Corporation of Virginia, Revenue Refunding Bonds, Senior Series B-1, 5%, 6/01/47	1,320	692,102
			2,858,809
Washington - 0.5%	Washington State Housing Financing Commission, Nonprofit Revenue Bonds (Skyline at First Hill Project), Series A, 5.625%, 1/01/38	1,750	1,028,423
Wisconsin - 0.6%	Wisconsin State Health and Educational Facilities Authority Revenue Bonds (New Castle Place Project), Series A, 7%, 12/01/31	1,855	1,380,677
Wyoming - 2.4%	Sweetwater County, Wyoming, Solid Waste Disposal, Revenue Refunding Bonds (FMC Corporation Project), AMT, 5.60%, 12/01/35	3,600	2,546,676
	Wyoming Municipal Power Agency, Power Supply Revenue Bonds, Series A, 5.375%, 1/01/42	3,030	2,767,451
			5,314,127
Guam - 0.4%	Guam Government Waterworks Authority, Water and Wastewater System, Revenue Refunding Bonds, 5.875%, 7/01/35	1,155	914,413
US Virgin Islands - 1.1%	Virgin Islands Government Refinery Facilities, Revenue Refunding Bonds (Hovenssa Coker Project), AMT, 6.50%, 7/01/21	3,000	2,337,030

	Total Municipal Bonds - 93.2%			203,334,972
	Municipal Bonds Transferred to Tender Option Bond Trusts (g)			
District of Columbia - 1.9%	District of Columbia, Water and Sewer Authority, Public Utility Revenue Refunding Bonds, 6%, 10/01/35		3,951	4,162,366

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BlackRock MuniAssets Fund, Inc.

(Percentages shown are based on Net Assets)

Schedule of Investments February 28, 2009 (Unaudited)

State	Municipal Bonds Transferred to Tender Option Bond Trusts (g)	Par (000)	Value
Florida - 3.6%	Miami-Dade County, Florida, Aviation Revenue Refunding Bonds (Miami International Airport), AMT, Series A, 5.25%, 10/01/33 (h)	\$ 8,870	\$ 7,864,053
Virginia - 3.9%	Virginia State, HDA, Commonwealth Mortgage Revenue Bonds, Series H, Sub-Series H-1, 5.375%, 7/01/36 (i)	8,690	8,476,661
	Total Municipal Bonds Transferred to Tender Option Bond Trusts - 9.4%		20,503,080
	Total Long-Term Investments (Cost - \$275,595,644) - 102.6%		223,838,052
	Short-Term Securities	Shares	
Money Market Fund - 1.1%	Merrill Lynch Institutional Tax-Exempt Fund, 0.61% (j)(k)	2,400,000	2,400,000
	Total Short-Term Securities (Cost - \$2,400,000) - 1.1%		2,400,000
	Total Investments (Cost - \$277,995,644*) - 103.7%		226,238,052
	Other Assets Less Liabilities - 1.2%		2,652,039
	Liability for Trust Certificates, Including Interest Expense and Fees Payable - (4.9)%		(10,794,161)
	Net Assets - 100.0%		\$ 218,095,930

* The cost and unrealized appreciation (depreciation) of investments as of February 28, 2009, as computed for federal income tax purposes, were as follows:

Aggregate cost	\$ 267,442,938
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Gross unrealized appreciation	\$ 4,258,605
Gross unrealized depreciation	(56,219,137)
<hr/>	
Net unrealized depreciation	\$ (51,960,532)
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(a) Non-income producing security.

(b) Issuer filed for bankruptcy and/or is in default of interest payments.

(c) US 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) AMBAC Insured.

(e) Represents a zero coupon bond. Rate shown reflects the effective yield as of report date.

(f) GNMA Collateralized.

(g) Securities represent bonds transferred to a tender option bond trust in exchange for which the Fund acquired residual interest certificates. These securities serve as collateral in a financing transaction.

(h) Assured Guaranty Insured.

(i) NPFGC Insured.

(j) Investments in companies considered to be an affiliate of the Fund, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, were as follows:

Affiliate	Net Activity	Income
Merrill Lynch Institutional Tax-Exempt Fund	(800,441)	\$ 78,039

(k) Represents the current yield as of report date.

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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 13(a)-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

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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 MuniAssets Fund, Inc.

By: /s/ Donald C. Burke

Donald C. Burke

Chief Executive Officer of

BlackRock MuniAssets Fund, Inc.

Date: April 22, 2009

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/ Donald C. Burke

Donald C. Burke

Chief Executive Officer (principal executive officer) of

BlackRock MuniAssets Fund, Inc.

Date: April 22, 2009

By: /s/ Neal J. Andrews

Neal J. Andrews

Chief Financial Officer (principal financial officer) of

BlackRock MuniAssets Fund, Inc.

Date: April 22, 2009
