

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
<b>Alabama - 0.6%</b>	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
<b>Alaska - 0.3%</b>	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.

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

1

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(Percentages shown are based on Net Assets)

State	Municipal Bonds	Par (000)	Value
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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
<b>California - 3.7%</b>	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
<b>Colorado - 4.8%</b>	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
<b>Connecticut - 1.8%</b>	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 (AFCCO 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
<b>Florida - 10.1%</b>	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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2

**BlackRock MuniAssets Fund, Inc.**

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**Schedule of Investments February 28, 2009 (Unaudited)**

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
		22,127,785

**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

3

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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
			4,265,984
<b>Illinois - 5.3%</b>	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
<b>Indiana - 0.8%</b>	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
<b>Iowa - 1.2%</b>	Iowa Finance Authority, Health Care Facilities, Revenue Refunding Bonds (Care Initiatives Project), 9.25%, 7/01/11 (c)	2,165	2,564,421
<b>Kansas - 0.1%</b>	Wyandotte County, Kansas, Kansas City Unified Government Revenue Refunding Bonds (General Motors Corporation Project), 6%, 6/01/25	1,770	256,650

4

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State	Municipal Bonds	Par (000)	Value
<b>Louisiana - 2.6%</b>	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
<b>Maryland - 1.4%</b>	Maryland State Economic Development Corporation Revenue Refunding Bonds (Baltimore Association for Retarded Citizens-Health and Mental Hygiene Program), Series A, 7.75%,		

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3/01/25	1,815	1,664,555
Maryland State Energy Financing Administration, Limited Obligation Revenue Bonds (Cogeneration-AES Warrior Run),		