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BLACKROCK MUNIASSETS FUND, INC.

Form N-Q

October 30, 2008

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: 06/01/2008 - 08/31/2008

Item 1 - Schedule of Investments

BlackRock MuniAssets Fund, Inc.

Schedule of Investments August 31, 2008 (Unaudited)

(Percentages shown are based on Net Assets)

State

Municipal Bonds

Alabama - 0.5%

Tuscaloosa, Alabama, Special Care Facilities Financing Authority,
Residential Care Facility Revenue Bonds (Capstone Village, Inc.
Project), Series A, 5.875%, 8/01/36

Alaska - 0.3%

Alaska Industrial Development and Export Authority Revenue Bonds
(Williams Lynxs Alaska Cargoport), AMT, 7.80%, 5/01/14

Arizona - 7.7%

Coconino County, Arizona, Pollution Control Corporation Revenue
Refunding Bonds (Tucson Electric Power - Navajo), AMT, Series A,
7.125%, 10/01/32
Coconino County, Arizona, Pollution Control Corporation Revenue
Refunding Bonds (Tucson Electric Power - Navajo), Series B, 7%,
10/01/32
Maricopa County, Arizona, IDA, Education Revenue Bonds (Arizona
Charter Schools Project 1), Series A, 6.625%, 7/01/20
Maricopa County, Arizona, IDA, M/F Housing Revenue Bonds (Sun King
Apartments Project), Series A, 6.75%, 5/01/31
Phoenix, Arizona, IDA, Airport Facility, Revenue Refunding Bonds

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(America West Airlines Inc. Project), AMT, 6.30%, 4/01/23
Pima County, Arizona, IDA, Education Revenue Bonds (Arizona Charter Schools Project), Series E, 7.25%, 7/01/31
Pima County, Arizona, IDA, Education Revenue Refunding Bonds (Arizona Charter Schools Project), Series O, 5.25%, 7/01/31
Pima County, Arizona, IDA, Education Revenue Refunding Bonds (Arizona Charter Schools Project II), Series A, 6.75%, 7/01/11 (a)
Pima County, Arizona, IDA, Education Revenue Refunding Bonds (Arizona Charter Schools Project II), Series A, 6.75%, 7/01/31
Salt Verde Financial Corporation, Arizona, Senior Gas Revenue Bonds, 5%, 12/01/32
Salt Verde Financial Corporation, Arizona, Senior Gas Revenue Bonds, 5%, 12/01/37
Show Low, Arizona, Improvement District Number 5, Special Assessment Bonds, 6.375%, 1/01/15

California - 6.0%

California State, Various Purpose, GO, 5.25%, 11/01/25
California State, Various Purpose, GO, 5.50%, 11/01/33
Fontana, California, Special Tax, Refunding (Community Facilities District Number 22 - Sierra), 6%, 9/01/34
Los Angeles County, California, Metropolitan Transportation Authority, Sales Tax Revenue Refunding Bonds, Proposition C, VRDN, Second Senior Series A, 7.50%, 7/01/20 (b) (c)

Portfolio Abbreviations

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

AMT Alternative Minimum Tax (subject to)
EDA Economic Development Authority
EDR Economic Development Revenue Bonds
GO General Obligation Bonds
HDA Housing Development Authority
HFA Housing Finance Agency
IDA Industrial Development Authority
IDR Industrial Development Revenue Bonds
M/F Multi-Family
PCR Pollution Control Revenue Bonds
VRDN Variable Rate Demand Notes

BlackRock MuniAssets Fund, Inc.

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(Percentages shown are based on Net Assets)

State

Municipal Bonds

San Jose, California, Airport Revenue Refunding Bonds, AMT, Series A, 5.50%, 3/01/32 (d)
Southern California Public Power Authority, Natural Gas Project Number 1 Revenue Bonds, Series A, 5%, 11/01/29

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 Colorado - 4.6%

Colorado Health Facilities Authority, Revenue Refunding Bonds (Chris Living Communities Project), Series A, 5.75%, 1/01/26
 Denver, Colorado, City and County Airport Revenue Bonds, AMT, Series D, 7.75%, 11/15/13 (d)
 Elk Valley, Colorado, Public Improvement Revenue Bonds (Public Improvement Fee), Series A, 7.10%, 9/01/14
 Elk Valley, Colorado, Public Improvement Revenue Bonds (Public Improvement Fee), Series A, 7.30%, 9/01/22
 Elk Valley, Colorado, Public Improvement Revenue Bonds (Public Improvement Fee), Series B, 7.45%, 9/01/31
 North Range Metropolitan District Number 1, Colorado, GO, 7.25%, 12/15/11 (a)
 Plaza Metropolitan District Number 1, Colorado, Tax Allocation Revenue Bonds (Public Improvement Fees), 8%, 12/01/25
 Plaza Metropolitan District Number 1, Colorado, Tax Allocation Revenue Bonds (Public Improvement Fees), 8.125%, 12/01/25

 Connecticut - 2.7%

Connecticut State Development Authority, Airport Facility Revenue Bonds (Learjet Inc. Project), AMT, 7.95%, 4/01/26
 Connecticut State Development Authority, IDR (AFCO Cargo BDL-LLC Project), AMT, 8%, 4/01/30
 Connecticut State, HFA, Housing Mortgage Finance Program Revenue Bonds, AMT, Sub-Series A-2, 5.15%, 5/15/38
 Mashantucket Western Pequot Tribe, Connecticut, Revenue Refunding Bonds, Sub-Series A, 5.50%, 9/01/36

 Florida - 11.4%

Capital Projects Finance Authority, Florida, Continuing Care Retirement Revenue Bonds (Glenridge on Palmer Ranch), Series A, 8%, 6/01/12 (a)
 Greater Orlando Aviation Authority, Florida, Airport Facilities Revenue Bonds (JetBlue Airways Corp.), AMT, 6.375%, 11/15/26
 Halifax Hospital Medical Center, Florida, Hospital Revenue Refunding Bonds, Series A, 5%, 6/01/38
 Harbor Bay, Florida, Community Development District, Capital Improvement Special Assessment Revenue Bonds, Series A, 7%, 5/01/33
 Highlands County, Florida, Health Facilities Authority, Hospital Revenue Bonds (Adventist Health System), Series C, 5.25%, 11/15/36
 Hillsborough County, Florida, IDA, Exempt Facilities Revenue Bonds (National Gypsum Company), AMT, Series A, 7.125%, 4/01/30

BlackRock MuniAssets Fund, Inc.

Schedule of Investments August 31, 2008 (Unaudited)

(Percentages shown are based on Net Assets)

 State

Municipal Bonds

Hillsborough County, Florida, IDA, Hospital Revenue Bonds (Tampa General Hospital Project), 5%, 10/01/36

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Jacksonville, Florida, Economic Development Commission, Health Care Facilities, Revenue Refunding Bonds (Florida Proton Therapy Institute), Series A, 6%, 9/01/17
 Jacksonville, Florida, Economic Development Commission, IDR (Gerdau Ameristeel US, Inc.), AMT, 5.30%, 5/01/37
 Lee County, Florida, IDA, IDR (Lee Charter Foundation), Series A, 5.375%, 6/15/37
 Midtown Miami, Florida, Community Development District, Special Assessment Revenue Bonds, Series A, 6.25%, 5/01/37
 Orlando, Florida, Urban Community Development District, Capital Improvement Special Assessment Bonds, Series A, 6.95%, 5/01/11 (a)
 Santa Rosa Bay Bridge Authority, Florida, Revenue Bonds, 6.25%, 7/01/28
 Sarasota County, Florida, Health Facilities Authority, Retirement Facility Revenue Refunding Bonds (Village on the Isle Project), 5.50%, 1/01/27
 Sarasota County, Florida, Health Facilities Authority, Retirement Facility Revenue Refunding Bonds (Village on the Isle Project), 5.50%, 1/01/32
 Sumter Landing Community Development District, Florida, Recreational Revenue Bonds, Sub-Series B, 5.70%, 10/01/38
 Tolomato Community Development District, Florida, Special Assessment Bonds, 6.65%, 5/01/40
 Waterchase, Florida, Community Development District, Capital Improvement Revenue Bonds, Series A, 6.70%, 5/01/11 (a)

 Georgia - 3.7%

Atlanta, Georgia, Tax Allocation Bonds (Atlantic Station Project), 7.90%, 12/01/11 (a)
 Atlanta, Georgia, Tax Allocation Bonds (Princeton Lakes Project), 5.50%, 1/01/31
 Clayton County, Georgia, Tax Allocation Bonds (Ellenwood Project), 7.50%, 7/01/33
 Main Street Natural Gas, Inc., Georgia, Gas Project Revenue Bonds, Series A, 6.375%, 7/15/38
 Rockdale County, Georgia, Development Authority Revenue Bonds (Visy Paper Project), AMT, Series A, 6.125%, 1/01/34

 Idaho - 0.4%

Idaho Health Facilities Authority, Revenue Refunding Bonds (Valley Vista Care Corporation), Series A, 7.75%, 11/15/16

 Illinois - 4.3%

Chicago, Illinois, O'Hare International Airport, Special Facility Revenue Refunding Bonds (American Airlines Inc. Project), 5.50%, 12/01/30

BlackRock MuniAssets Fund, Inc.

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Illinois State Finance Authority Revenue Bonds (Clare At Water Tower Project), Series A, 6.125%, 5/15/38
 Illinois State Finance Authority Revenue Bonds (Landing At Plymouth Place Project), Series A, 6%, 5/15/37
 Illinois State Finance Authority Revenue Bonds (Monarch Landing, Inc. Project), Series A, 7%, 12/01/37
 Illinois State Finance Authority Revenue Bonds (Primary Health Care Centers Program), 6.60%, 7/01/24
 Lincolnshire, Illinois, Special Service Area Number 1, Special Tax Bonds (Sedgebrook Project), 6.25%, 3/01/34
 Lombard, Illinois, Public Facilities Corporation, First Tier Revenue Bonds (Conference Center and Hotel), Series A-1, 7.125%, 1/01/36
 Village of Wheeling, Illinois, Revenue Bonds (North Milwaukee/Lake-Cook Tax Increment Financing (TIF) Redevelopment Project), 6%, 1/01/25

Indiana - 0.9% Vanderburgh County, Indiana, Redevelopment Commission, Redevelopment District Tax Allocation Bonds, 5.25%, 2/01/31
 Vigo County, Indiana, Hospital Authority Revenue Bonds (Union Hospital, Inc.), 5.70%, 9/01/37
 Vigo County, Indiana, Hospital Authority Revenue Bonds (Union Hospital, Inc.), 5.75%, 9/01/42

Iowa - 1.0% Iowa Finance Authority, Health Care Facilities, Revenue Refunding Bonds (Care Initiatives Project), 9.25%, 7/01/11 (a)

Kansas - 0.4% Wyandotte County, Kansas, Kansas City Unified Government Revenue Refunding Bonds (General Motors Corporation Project), 6%, 6/01/25

Kentucky - 1.1% Kenton County, Kentucky, Airport Board, Special Facilities Revenue Bonds (Mesaba Aviation Inc. Project), AMT, Series A, 6.70%, 7/01/09 (a)

Louisiana - 2.8% Louisiana Local Government Environmental Facilities and Community Development Authority Revenue Bonds (Westlake Chemical Corporation), 6.75%, 11/01/32
 Louisiana Public Facilities Authority, Hospital Revenue Bonds (Franciscan Missionaries of Our Lady Health System, Inc.), Series A, 5.25%, 8/15/36
 Saint John Baptist Parish, Louisiana, Revenue Bonds (Marathon Oil Corporation), Series A, 5.125%, 6/01/37

Maryland - 1.8% Maryland State Economic Development Corporation Revenue Refunding Bonds (Baltimore Association for Retarded Citizens-Health and Mental Hygiene Program), Series A, 7.75%, 3/01/25
 Maryland State Energy Financing Administration, Limited Obligation Revenue Bonds (Cogeneration-AES Warrior Run), AMT, 7.40%, 9/01/19

BlackRock MuniAssets Fund, Inc.
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State

Municipal Bonds

Maryland	Maryland State Health and Higher Educational Facilities Authority Revenue Bonds (King Farm Presbyterian Community), Series A, 5.30%, 1/01/37 Maryland State Health and Higher Educational Facilities Authority Revenue Bonds (Washington Christian Academy), 5.50%, 7/01/38
<hr/>	
Massachusetts - 1.1%	Massachusetts State Health and Educational Facilities Authority Revenue Bonds (Jordan Hospital), Series E, 6.75%, 10/01/33 Massachusetts State Health and Educational Facilities Authority, Revenue Refunding Bonds (Bay Cove Human Services Issue), Series A, 5.90%, 4/01/28
<hr/>	
Michigan - 1.5%	Advanced Technology Academy, Michigan, Revenue Bonds, 6%, 11/01/37 Macomb County, Michigan, Hospital Finance Authority, Hospital Revenue Bonds (Mount Clemens General Hospital), Series B, 5.875%, 11/15/13 (a) Monroe County, Michigan, Hospital Financing Authority, Hospital Revenue Refunding Bonds (Mercy Memorial Hospital Corporation), 5.50%, 6/01/35
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Missouri - 0.4%	Kansas City, Missouri, IDA, First Mortgage Health Facilities Revenue Bonds (Bishop Spencer Place), Series A, 6.50%, 1/01/35
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Nevada - 0.7%	Clark County, Nevada, IDR (Nevada Power Company Project), AMT, Series A, 5.60%, 10/01/30 Clark County, Nevada, Improvement District Number 142, Special Assessment Bonds, 6.375%, 8/01/23
<hr/>	
New Hampshire - 0.4%	New Hampshire Health and Education Facilities Authority, Hospital Revenue Bonds (Catholic Medical Center), 5%, 7/01/36
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New Jersey - 10.6%	Camden County, New Jersey, Pollution Control Financing Authority, Solid Waste Resource Recovery, Revenue Refunding Bonds, AMT, Series A, 7.50%, 12/01/10 Camden County, New Jersey, Pollution Control Financing Authority, Solid Waste Resource Recovery, Revenue Refunding Bonds, AMT, Series B, 7.50%, 12/01/09 New Jersey EDA, Cigarette Tax Revenue Bonds, 5.50%, 6/15/24 New Jersey EDA, IDR, Refunding (Newark Airport Marriott Hotel), 7%, 10/01/14 New Jersey EDA, Retirement Community Revenue Bonds (Cedar Crest Village Inc. Facility), Series A, 7.25%, 11/15/11 (a) New Jersey EDA, Special Facility Revenue Bonds (Continental Airlines Inc. Project), AMT, 6.25%, 9/15/19 New Jersey EDA, Special Facility Revenue Bonds (Continental Airlines Inc. Project), AMT, 6.25%, 9/15/29

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New Jersey EDA, Special Facility Revenue Bonds (Continental Airlines Inc. Project), AMT, 9%, 6/01/33

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State

Municipal Bonds

-----	<p>New Jersey Health Care Facilities Financing Authority Revenue Bonds (Pascack Valley Hospital Association), 6.625%, 7/01/36</p> <p>New Jersey Health Care Facilities Financing Authority, Revenue Refunding Bonds (Saint Joseph's Healthcare System), 6.625%, 7/01/38</p> <p>New Jersey State Transportation Trust Fund Authority, Transportation System Revenue Bonds, Series C, 5.05%, 12/15/35 (d)(e)</p> <p>Tobacco Settlement Financing Corporation of New Jersey, Asset-Backed Revenue Refunding Bonds, Series 1A, 5%, 6/01/41</p>
-----	<p>New Mexico - 1.0% Farmington, New Mexico, PCR, Refunding (Tucson Electric Power Company - San Juan Project), Series A, 6.95%, 10/01/20</p>
-----	<p>New York - 4.1%</p> <p>Dutchess County, New York, IDA, Civic Facility Revenue Refunding Bonds (Saint Francis Hospital), Series A, 7.50%, 3/01/29</p> <p>New York City, New York, City IDA, Civic Facility Revenue Bonds, Series C, 6.80%, 6/01/28</p> <p>New York City, New York, City IDA, Civic Facility Revenue Bonds (Special Needs Facilities Pooled Program), Series C-1, 6.625%, 7/01/29</p> <p>New York City, New York, City IDA, Special Facility Revenue Bonds (British Airways Plc Project), AMT, 7.625%, 12/01/32</p> <p>New York Liberty Development Corporation Revenue Bonds (National Sports Museum Project), Series A, 6.125%, 2/15/19</p> <p>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</p> <p>New York State Dormitory Authority, Non-State Supported Debt, Revenue Refunding Bonds (New York University Hospital Center), Series A, 5%, 7/01/20</p> <p>Westchester County, New York, IDA, Continuing Care Retirement, Mortgage Revenue Bonds (Kendal on Hudson Project), Series A, 6.50%, 1/01/13 (a)</p>
-----	<p>North Carolina - 2.5%</p> <p>North Carolina Medical Care Commission, Health Care Facilities, First Mortgage Revenue Refunding Bonds (Deerfield Episcopal Project), Series A, 6.125%, 11/01/38</p> <p>North Carolina Medical Care Commission, Retirement Facilities, First Mortgage Revenue Bonds (Givens Estates Project), Series A, 6.50%, 7/01/13 (a)</p> <p>North Carolina State Educational Assistance Authority, Revenue Refunding Bonds (Guaranteed Student Loan), VRDN, AMT, Series A-1,</p>

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10%, 9/01/35 (b) (d)

Ohio - 1.3% Buckeye Tobacco Settlement Financing Authority, Ohio, Tobacco
Settlement Asset-Backed Bonds, Series A-2, 6.50%, 6/01/47

Pennsylvania - 8.5% Allegheny County, Pennsylvania, Hospital Development Authority,
Revenue Refunding Bonds (West Penn Allegheny Health System),
Series A, 5.375%, 11/15/40

BlackRock MuniAssets Fund, Inc.
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State Municipal Bonds

Bucks County, Pennsylvania, IDA, Retirement Community Revenue
Bonds (Ann's Choice Inc.), Series A, 6.125%, 1/01/25
Bucks County, Pennsylvania, IDA, Retirement Community Revenue
Bonds (Ann's Choice Inc.), Series A, 6.25%, 1/01/35
Harrisburg, Pennsylvania, Authority, University Revenue Bonds
(Harrisburg University of Science), Series B, 6%, 9/01/36
Lancaster County, Pennsylvania, Hospital Authority Revenue Bonds
(Brethren Village Project), Series A, 6.25%, 7/01/26
Lancaster County, Pennsylvania, Hospital Authority Revenue Bonds
(Brethren Village Project), Series A, 6.50%, 7/01/40
Montgomery County, Pennsylvania, IDA, Revenue Bonds (Whitemarsh
Continuing Care Project), 6.125%, 2/01/28
Pennsylvania Economic Development Financing Authority, Exempt
Facilities Revenue Bonds (National Gypsum Company), AMT, Series A,
6.25%, 11/01/27
Pennsylvania Economic Development Financing Authority, Exempt
Facilities Revenue Bonds (Reliant Energy), AMT, Series B, 6.75%,
12/01/36
Philadelphia, Pennsylvania, Authority for IDR (Air Cargo), AMT,
Series A, 7.50%, 1/01/25
Philadelphia, Pennsylvania, Authority for IDR, Commercial
Development, 7.75%, 12/01/17

Rhode Island - 1.0% Central Falls, Rhode Island, Detention Facility Corporation, Revenue
Refunding Bonds, 7.25%, 7/15/35

South Carolina - 1.5% Connector 2000 Association, Inc., South Carolina, Toll Road and
Capital Appreciation Revenue Bonds, Senior-Series B, 6.50%,
1/01/09 (e)
Connector 2000 Association, Inc., South Carolina, Toll Road and
Capital Appreciation Revenue Bonds, Senior-Series B, 7.969%,
1/01/14 (e)
South Carolina Jobs, EDA, EDR (Westminster Presbyterian Center),
7.75%, 11/15/10 (a)

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Tennessee - 1.4%
 Knox County, Tennessee, Health, Educational and Housing Facilities Board, Hospital Facilities Revenue Refunding Bonds (Covenant Health), Series A, 5.06%, 1/01/40 (e)
 Shelby County, Tennessee, Health, Educational and Housing Facilities Board Revenue Bonds (Germantown Village), 6.25%, 12/01/34
 Shelby County, Tennessee, Health, Educational and Housing Facilities Board Revenue Bonds (Germantown Village), Series A, 7.25%, 12/01/34

Texas - 3.0%
 Brazos River Authority, Texas, PCR, Refunding (TXU Energy Company LLC Project), AMT, Series A, 7.70%, 4/01/33
 Houston, Texas, Health Facilities Development Corporation, Retirement Facility Revenue Bonds (Buckingham Senior Living Community), Series A, 7.125%, 2/15/14 (a)

BlackRock MuniAssets Fund, Inc.
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 (Percentages shown are based on Net Assets)

State Municipal Bonds

North Texas Tollway Authority, System Revenue Refunding Bonds, Second Tier, Series F, 6.125%, 1/01/31

Utah - 0.6%
 Carbon County, Utah, Solid Waste Disposal, Revenue Refunding Bonds (Laidlaw Environmental), AMT, Series A, 7.45%, 7/01/17

Virginia - 1.5%
 Dulles Town Center, Virginia, Community Development Authority, Special Assessment Tax (Dulles Town Center Project), 6.25%, 3/01/26
 Fairfax County, Virginia, EDA, Residential Care Facilities, Mortgage Revenue Refunding Bonds (Goodwin House, Inc.), 5.125%, 10/01/37
 Fairfax County, Virginia, EDA, Residential Care Facilities, Mortgage Revenue Refunding Bonds (Goodwin House, Inc.), 5.125%, 10/01/42
 Lexington, Virginia, IDA, Residential Care Facility, Mortgage Revenue Refunding Bonds (Kendal at Lexington), Series A, 5.375%, 1/01/28
 Tobacco Settlement Financing Corporation of Virginia, Revenue Refunding Bonds, Senior Series B-1, 5%, 6/01/47

Washington - 0.6%
 Washington State Housing Financing Commission, Nonprofit Revenue Bonds (Skyline at First Hill Project), Series A, 5.625%, 1/01/38

Wisconsin - 0.7%
 Wisconsin State Health and Educational Facilities Authority Revenue Bonds (New Castle Place Project), Series A, 7%, 12/01/31

Wyoming - 1.1%
 Wyoming Municipal Power Agency, Power Supply Revenue Bonds, Series A, 5.375%, 1/01/42

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U.S. Virgin Islands - 1.1% Virgin Islands Government Refinery Facilities, Revenue Refunding Bonds (Hovensa Coker Project), AMT, 6.50%, 7/01/21

Total Municipal Bonds - 94.2%

Municipal Bonds Transferred to Tender Option Bond Trusts (f)

Florida - 3.2% Miami-Dade County, Florida, Aviation Revenue Bonds (Miami International Airport), AMT, Series A, 5.25%, 10/01/33 (g)

Virginia - 3.3% Virginia State, HDA, Commonwealth Mortgage Revenue Bonds, Series H, Sub-Series H-1, 5.375%, 7/01/36 (c)

Total Municipal Bonds Transferred to Tender Option Bond Trusts - 6.5%

Total Long-Term Investments (Cost - \$273,452,548) - 100.7%

Short-Term Securities

Merrill Lynch Institutional Tax-Exempt Fund, 1.84% (h) (i)

Total Short-Term Securities (Cost - \$3,300,000) - 1.3%

Total Investments (Cost - \$276,752,548*) - 102.0%

Other Assets Less Liabilities - 1.4%

Liability for Trust Certificates, Including Interest Expense and Fees Payable - (3.4)%

Net Assets - 100.0%

BlackRock MuniAssets Fund, Inc.
Schedule of Investments August 31, 2008 (Unaudited)

* The cost and unrealized appreciation (depreciation) of investments as of August 31, 2008, as computed for federal income tax purposes, were as follows:

Aggregate cost	\$ 268,031,634
	=====
Gross unrealized appreciation	\$ 5,892,694
Gross unrealized depreciation	(16,206,785)

Net unrealized depreciation	\$ (10,314,091)
	=====

(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.

(b) Variable rate security. Rate shown is as of report date. Maturity shown is

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- the final maturity date.
- (c) MBIA Insured.
 - (d) AMBAC Insured.
 - (e) Represents a zero coupon bond. Rate shown reflects the effective yield at the time of purchase.
 - (f) Securities represents bonds transferred to a tender option bond trust in exchange for which the Fund acquired the residual interest certificates. These securities serve as collateral in a financing transaction.
 - (g) Assured Guaranty Insured.
 - (h) 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	99,559	\$24,146

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

BlackRock MuniAssets Fund, Inc.
 Schedule of Investments August 31, 2008 (Unaudited)

- o Effective June 1, 2008, the Fund adopted Financial Accounting Standards Board Statement of Financial Accounting Standards No. 157, "Fair Value Measurements" ("FAS 157"). FAS 157 clarifies the definition of fair value, establishes a framework for measuring fair values and requires additional disclosures about the use of fair value measurements. Various inputs are used in determining the fair value of investments, which are as follows:
 - o Level 1 - price quotations in active markets/exchanges for identical securities
 - o Level 2 - other observable inputs (including, but not limited to: quoted prices for 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)
 - o Level 3 - unobservable inputs based on the best information available in the circumstance, to the extent observable inputs are not available (including the Fund's own assumption used in determining the fair value of investments)

The inputs or methodology used for valuing securities are not necessarily an indication of the risk associated with investing in those securities. For information about the Fund's policy regarding valuation of investments and other significant accounting policies, please refer to the Fund's most recent financial statements as contained in its annual report.

The following table summarizes the inputs used as of August 31, 2008 in determining the fair valuation of the Fund's investments:

Valuation Inputs	Investments in Securities
Level 1	--
Level 2	\$ 266,497,543
Level 3	--

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Total \$ 266,497,543
=====

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 MuniAssets Fund, Inc.

By: /s/ Donald C. Burke

Donald C. Burke
Chief Executive Officer of
BlackRock MuniAssets Fund, Inc.

Date: October 20, 2008

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: October 20, 2008

By: /s/ Neal J. Andrews

Neal J. Andrews
Chief Financial Officer (principal financial officer) of
BlackRock MuniAssets Fund, Inc.

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Date: October 20, 2008