

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<br>(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    |

Edgar Filing: BLACKROCK MUNIASSETS FUND, INC. - Form N-Q

**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

**BlackRock MuniAssets Fund, Inc.**

Schedule of Investments February 28, 2009 (Unaudited)

(Percentages shown are based on Net Assets)

| State | Municipal Bonds | Par<br>(000) | Value |
|-------|-----------------|--------------|-------|
|-------|-----------------|--------------|-------|

Edgar Filing: BLACKROCK MUNIASSETS FUND, INC. - Form N-Q

|                           |  |          |              |
|---------------------------|--|----------|--------------|
|                           | 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,  |          |              |

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

**BlackRock MuniAssets Fund, Inc.**

(Percentages shown are based on Net Assets)

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

| State | Municipal Bonds   | Par<br>(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   |              |            |

Edgar Filing: BLACKROCK MUNIASSETS FUND, INC. - Form N-Q

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

**Georgia - 2.0%**

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

3

**BlackRock MuniAssets Fund, Inc.**

(Percentages shown are based on Net Assets)

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

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

Edgar Filing: BLACKROCK MUNIASSETS FUND, INC. - Form N-Q

|                       |   |       |                   |
|-----------------------|---|-------|-------------------|
|                       | 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           |
|                       |   |       | <u>11,452,785</u> |
| <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           |
|                       |   |       | <u>1,811,572</u>  |
| <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

## 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>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        |
|                         |  |           | <u>5,662,505</u> |
| <b>Maryland - 1.4%</b>  | Maryland State Economic Development Corporation Revenue Refunding Bonds (Baltimore Association for Retarded  |           |                  |

Edgar Filing: BLACKROCK MUNIASSETS FUND, INC. - Form N-Q

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

**BlackRock MuniAssets Fund, Inc.**

Schedule of Investments February 28, 2009 (Unaudited)

(Percentages shown are based on Net  
Assets)

Edgar Filing: BLACKROCK MUNIASSETS FUND, INC. - Form N-Q

| State                       | Municipal Bonds  | Par<br>(000) | Value      |  |
|-----------------------------|--|--------------|------------|--|
| <b>Missouri - 0.3%</b>      | 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    |  |
| <b>Nevada - 0.6%</b>        | Clark County, Nevada, Improvement District Number 142, Special Assessment Bonds, 6.375%, 8/01/23   | 630          | 453,846    |  |
|                             |  |              | 1,393,198  |  |
| <b>New Hampshire - 0.3%</b> | New Hampshire Health and Education Facilities Authority, Hospital Revenue Bonds (Catholic Medical Center), 5%, 7/01/36                                   | 1,165        | 729,325    |  |
| <b>New Jersey - 10.4%</b>   | 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,   |              |            |  |



Edgar Filing: BLACKROCK MUNIASSETS FUND, INC. - Form N-Q

|                          |   |       |            |
|--------------------------|---|-------|------------|
|                          | 5.048%, 12/15/35 (d)(e)   | 3,450 | 629,418    |
|                          |   |       | 22,786,732 |
| <b>New Mexico - 1.1%</b> | Farmington, New Mexico, PCR, Refunding (Tucson Electric Power Company - San Juan Project), Series A, 6.95%, 10/01/20      | 2,500 | 2,470,475  |
| <b>New York - 6.0%</b>   | 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  |

6

**BlackRock MuniAssets Fund, Inc.**

Schedule of Investments February 28, 2009 (Unaudited)

(Percentages shown are based on Net Assets)

| 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   |
| <b>North Carolina - 1.7%</b> | North Carolina Medical Care Commission, Health Care  |           |              |

Edgar Filing: BLACKROCK MUNIASSETS FUND, INC. - Form N-Q

|                            |   |       |                  |
|----------------------------|---|-------|------------------|
|                            | 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> |
| <b>Ohio - 1.9%</b>         | 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> |
| <b>Oklahoma - 0.4%</b>     | Tulsa County, Oklahoma, Home Finance Authority, S/F Mortgage Revenue Refunding Bonds, AMT, Series C, 5.25%, 12/01/38 (f)                                | 972   | 831,488          |
| <b>Pennsylvania - 7.9%</b> | 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          |

7

## BlackRock MuniAssets Fund, Inc.

Schedule of Investments February 28, 2009 (Unaudited) (Percentages shown are based on Net Assets)

| State | Municipal Bonds   | Par<br>(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                 |              |              |

Edgar Filing: BLACKROCK MUNIASSETS FUND, INC. - Form N-Q

|                              |  |       |                   |
|------------------------------|--|-------|-------------------|
|                              | 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         |
|                              |  |       | <u>17,283,809</u> |
| <b>Rhode Island - 0.8%</b>   | Central Falls, Rhode Island, Detention Facility Corporation, Revenue Refunding Bonds, 7.25%, 7/15/35   | 2,495 | 1,686,795         |
| <b>South Carolina - 0.4%</b> | 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           |
| <b>Tennessee - 1.2%</b>      | 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         |
|                              |  |       | <u>2,603,802</u>  |
| <b>Texas - 4.9%</b>          | 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         |

8

**BlackRock MuniAssets Fund, Inc.**

Schedule of Investments February 28, 2009 (Unaudited)

(Percentages shown are based on Net Assets)

| 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 |

Edgar Filing: BLACKROCK MUNIASSETS FUND, INC. - Form N-Q

|                                 |  |       |            |
|---------------------------------|--|-------|------------|
|                                 | 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 |
| <b>Utah - 0.8%</b>              | Carbon County, Utah, Solid Waste Disposal, Revenue Refunding Bonds (Laidlaw Environmental), AMT, Series A, 7.45%, 7/01/17              | 1,660 | 1,654,671  |
| <b>Virginia - 1.3%</b>          | 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  |
| <b>Washington - 0.5%</b>        | 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  |
| <b>Wisconsin - 0.6%</b>         | Wisconsin State Health and Educational Facilities Authority Revenue Bonds (New Castle Place Project), Series A, 7%, 12/01/31           | 1,855 | 1,380,677  |
| <b>Wyoming - 2.4%</b>           | 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  |
| <b>Guam - 0.4%</b>              | Guam Government Waterworks Authority, Water and Wastewater System, Revenue Refunding Bonds, 5.875%, 7/01/35                            | 1,155 | 914,413    |
| <b>US Virgin Islands - 1.1%</b> | Virgin Islands Government Refinery Facilities, Revenue Refunding Bonds (Hovenssa Coker Project), AMT, 6.50%, 7/01/21                   | 3,000 | 2,337,030  |

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

9

**BlackRock MuniAssets Fund, Inc.**

(Percentages shown are based on Net Assets)

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

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

Edgar Filing: BLACKROCK MUNIASSETS FUND, INC. - Form N-Q

|                               |                 |
|-------------------------------|-----------------|
| Gross unrealized appreciation | \$ 4,258,605    |
| Gross unrealized depreciation | (56,219,137)    |
| <hr/>                         |                 |
| Net unrealized depreciation   | \$ (51,960,532) |
| <hr/>                         |                 |

(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:

| <b>Affiliate</b>                            | <b>Net<br/>Activity</b> | <b>Income</b> |
|---|-------------------------|---------------|
| Merrill Lynch Institutional Tax-Exempt Fund | (800,441)               | \$ 78,039     |

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

10

---

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

## Edgar Filing: BLACKROCK MUNIASSETS FUND, INC. - Form N-Q

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

---