

BLACKROCK MUNIVEST FUND, INC.

Form N-Q

January 22, 2019

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: 811-05611

Name of Fund: BlackRock MuniVest Fund, Inc. (MVF)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: John M. Perlowski, Chief Executive Officer, BlackRock MuniVest Fund,
Inc., 55 East 52nd Street, New York, NY 10055

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

Date of fiscal year end: 08/31/2019

Date of reporting period: 11/30/2018

Item 1 Schedule of Investments

Schedule of Investments (unaudited)

BlackRock MuniVest Fund, Inc. (MVF)

November 30, 2018

(Percentages shown are based on Net Assets)

| <i>Security</i> | <i>Par</i> | <i>Value</i> |
|--|--------------|--------------|
| | <i>(000)</i> | |
| Municipal Bonds 124.3% | | |
| Alabama 1.9% | | |
| City of Selma Alabama IDB, RB, Gulf Opportunity Zone, International Paper Co. Project, Series A: | | |
| 5.80%, 05/01/34 | \$ 1,850 | \$ 1,937,080 |
| 5.38%, 12/01/35 | 1,000 | 1,077,580 |
| State of Alabama Docks Department, Refunding RB, 6.00%, 10/01/20 ^(a) | 7,610 | 8,161,116 |
| | | 11,175,776 |
| Alaska 0.5% | | |
| City of Anchorage Alaska Electric Revenue, Refunding RB, Series A, 5.00%, 12/01/41 | 3,000 | 3,287,580 |
| Arizona 5.4% | | |
| Arizona IDA, Refunding RB, Basis Schools, Inc. Projects, Series A, 5.38%, 07/01/50 ^(b) | 2,500 | 2,528,550 |
| City of Phoenix Arizona Civic Improvement Corp., Refunding RB, Junior Lien, Series A, 5.00%, 07/01/20 ^(a) | 2,000 | 2,094,460 |
| City of Phoenix Arizona IDA, RB, Candeo School, Inc. Project: | | |
| 6.63%, 07/01/33 | 2,245 | 2,446,960 |
| 6.88%, 07/01/44 | 3,440 | 3,716,714 |
| City of Phoenix Arizona IDA, Refunding RB ^(b) : | | |
| Basis Schools, Inc. Projects, 5.00%, 07/01/35 | 600 | 606,000 |
| Basis Schools, Inc. Projects, 5.00%, 07/01/45 | 760 | 751,154 |
| Basis Schools, Inc. Projects, Series A, 5.00%, 07/01/35 | 1,125 | 1,136,250 |
| Legacy Traditional School Projects, 5.00%, 07/01/45 | 700 | 699,965 |
| County of Maricopa Arizona Pollution Control Corp., Refunding RB, Southern California Edison Co., Series A, 5.00%, 06/01/35 | 3,300 | 3,390,354 |
| Salt Verde Financial Corp., RB, Senior, 5.00%, 12/01/37 | 12,605 | 14,325,834 |
| | | 31,696,241 |
| California 7.1% | | |
| California Health Facilities Financing Authority, RB: | | |
| St. Joseph Health System, Series A, 5.75%, 07/01/39 | 5,000 | 5,111,950 |
| Sutter Health, Series B, 6.00%, 08/15/20 ^(a) | 5,600 | 6,001,968 |
| <i>Security</i> | <i>Par</i> | <i>Value</i> |
| | <i>(000)</i> | |
| California (continued) | | |
| California Health Facilities Financing Authority, Refunding RB, Dignity Health, Series A, 6.00%, 07/01/19 ^(a) | \$ 1,055 | \$ 1,081,512 |
| California Municipal Finance Authority, ARB, Senior Lien, Linxs APM Project, AMT, 5.00%, 12/31/43 | 2,800 | 3,005,240 |
| City of Los Angeles California Department of Airports, Refunding ARB, Los Angeles International Airport, Series A, 5.25%, 05/15/39 | 1,200 | 1,218,528 |

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|--|--------|------------|
| Golden State Tobacco Securitization Corp., Refunding RB, Series A-1, 5.25%, 06/01/47 | 1,880 | 1,864,678 |
| Los Angeles Community College District California, GO, Refunding, Election of 2008, Series A, 6.00%, 08/01/19 ^(a) | 9,585 | 9,862,390 |
| Oakland Unified School District/Alameda County, GO, Series A, 5.00%, 08/01/40 | 1,000 | 1,120,530 |
| Poway Unified School District, GO, Refunding, CAB, School Facilities Improvement District No. 2007-1, Election of 2008, Series B, 0.00%, 08/01/46 ^(c) | 10,000 | 3,065,400 |
| State of California, GO, Various Purposes: 6.50%, 04/01/19 ^(a) | 5,240 | 5,324,102 |
| 6.50%, 04/01/33 | 4,435 | 4,500,239 |
| | | 42,156,537 |
| Colorado 0.9% | | |
| Centerra Metropolitan District No. 1, Tax Allocation Bonds, 5.00%, 12/01/47 ^(b) | 1,025 | 1,020,295 |
| Colorado Health Facilities Authority, RB, Catholic Health Initiatives, Series D, 6.25%, 10/01/33 | 2,500 | 2,508,825 |
| Copperleaf Metropolitan District No. 2, GO, Refunding, 5.75%, 12/01/45 | 1,000 | 1,037,230 |
| Serenity Ridge Metropolitan District No 2, GO, Series A, 5.13%, 12/01/43 | 1,000 | 999,280 |
| | | 5,565,630 |
| Connecticut 1.0% | | |
| State of Connecticut, GO, Series A, 5.00%, 04/15/38 | 3,325 | 3,591,865 |

Schedule of Investments (unaudited) (continued)

BlackRock MuniVest Fund, Inc. (MVF)

November 30, 2018

(Percentages shown are based on Net Assets)

| <i>Security</i> | <i>Par (000)</i> | <i>Value</i> |
|--|----------------------|--------------|
| Connecticut (continued) | | |
| State of Connecticut Health & Educational Facility Authority, Refunding RB, Sacred Heart University Issue, Series I-1, 5.00%, 07/01/42 | \$ 2,000 | \$ 2,172,100 |
| | | 5,763,965 |
| Delaware 0.4% | | |
| County of Sussex Delaware, RB, NRG Energy, Inc., Indian River Power LLC Project, 6.00%, 10/01/40 | 2,500 | 2,604,800 |
| District of Columbia 0.2% | | |
| Metropolitan Washington Airports Authority, Refunding RB, Dulles Toll Road, 1st Senior Lien, Series A: | | |
| 5.00%, 10/01/39 | 415 | 423,371 |
| 5.25%, 10/01/44 | 650 | 663,032 |
| | | 1,086,403 |
| Florida 7.5% | | |
| Celebration Pointe Community Development District, Special Assessment Bonds, County of Alachua Florida ^(b) : | | |
| 5.00%, 05/01/32 | 905 | 934,141 |
| 5.00%, 05/01/48 | 2,270 | 2,269,887 |
| Central Florida Expressway Authority, Refunding RB, Senior Lien, 5.00%, 07/01/48 | 9,370 | 10,334,361 |
| County of Miami-Dade Florida, Refunding RB, Transit System Sales Surtax, 5.00%, 07/01/42 | 3,750 | 4,018,200 |
| County of Miami-Dade Florida Aviation, Refunding ARB, Miami International Airport, Series A-1, 5.38%, 10/01/20 ^(a) | 10,290 | 10,920,468 |
| County of Miami-Dade Florida Educational Facilities Authority, Refunding RB, University of Miami, Series A, 5.00%, 04/01/45 | 4,625 | 5,010,309 |
| County of Miami-Dade Florida Expressway Authority, Refunding RB, Series A (AGM), 5.00%, 07/01/35 | 8,900 | 9,267,214 |
| Lakewood Ranch Stewardship District, Special Assessment Bonds, Lakewood National & Polo Run Projects: | | |
| 4.63%, 05/01/27 | 255 | 258,070 |
| 5.25%, 05/01/37 | 470 | 479,254 |
| | <i>Par (000)</i> | <i>Value</i> |
| Florida (continued) | | |
| Lakewood Ranch Stewardship District, Special Assessment Bonds, Lakewood National & Polo Run Projects (continued): | | |
| 5.38%, 05/01/47 | \$ 770 | \$ 780,618 |
| | | 44,272,522 |
| Georgia 0.8% | | |

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|---|-------|-----------|
| City of Atlanta Georgia Department of Aviation, Refunding GARB, Series B, AMT, 5.00%, 01/01/29 | 1,070 | 1,121,617 |
| DeKalb Georgia Private Hospital Authority, Refunding RB, Children s Healthcare, 5.25%, 11/15/39 | 3,335 | 3,424,545 |
| | | 4,546,162 |
| Hawaii 0.9% | | |
| State of Hawaii Harbor System, RB, Series A, 5.50%, 07/01/35 | 5,000 | 5,249,500 |
| Illinois 11.8% | | |
| Chicago Board of Education, GO, Series C: Dedicated Revenues, Series H, 5.00%, 12/01/36 | 865 | 873,105 |
| Project, 5.25%, 12/01/35 | 2,785 | 2,826,413 |
| Chicago Board of Education, GO, Refunding: Dedicated Revenues, 5.00%, 12/01/25 | 1,560 | 1,616,753 |
| Dedicated Revenues, Series G, 5.00%, 12/01/34 | 865 | 876,245 |
| 5.00%, 12/01/25 | 1,200 | 1,249,212 |
| Chicago Board of Education, GO, Series D: 5.00%, 12/01/46 | 995 | 957,309 |
| 5.00%, 12/01/46 | 2,575 | 2,495,793 |
| Refunding Dedicated Revenues, Series F, 5.00%, 12/01/23 | 1,180 | 1,226,421 |
| City of Chicago Illinois O Hare International Airport, GARB, Senior Lien, Series D, AMT, 5.00%, 01/01/42 | 1,450 | 1,548,600 |
| City of Chicago Illinois Transit Authority, RB, Sales Tax Receipts, 5.25%, 12/01/36 | 2,110 | 2,224,362 |
| City of Chicago Illinois Wastewater Transmission, Refunding RB, 2nd Lien, Series C, 5.00%, 01/01/39 | 1,000 | 1,066,040 |
| County of Cook Illinois Community College District No. 508, GO, University & College Improvements, 5.25%, 12/01/31 | 5,000 | 5,197,650 |

Schedule of Investments (unaudited) (continued)

BlackRock MuniVest Fund, Inc. (MVF)

November 30, 2018

(Percentages shown are based on Net Assets)

| <i>Security</i> | <i>Par (000)</i> | <i>Value</i> |
|--|----------------------|--------------|
| Illinois (continued) | | |
| Illinois Finance Authority, RB, Memorial Health System, Series A, 5.25%, 07/01/44 | \$ 1,785 | \$ 1,913,199 |
| Illinois Finance Authority, Refunding RB: Northwestern Memorial Hospital, Series A, 6.00%, 08/15/19 ^(a) | 9,000 | 9,253,440 |
| OSF Healthcare System, 6.00%, 05/15/20 ^(a) | 3,205 | 3,383,166 |
| OSF Healthcare System, 6.00%, 05/15/39 | 1,000 | 1,039,250 |
| Presence Health Network, Series C, 5.00%, 02/15/41 | 3,600 | 3,937,968 |
| Metropolitan Pier & Exposition Authority, RB, McCormick Place Expansion Project Bonds, Series A: 0.00%, 12/15/56 ^(c) | 8,755 | 1,224,299 |
| 5.00%, 06/15/57 | 425 | 437,125 |
| Metropolitan Pier & Exposition Authority, Refunding RB, McCormick Place Expansion Project Bonds, Series B, 0.00%, 12/15/54 ^(c) | 12,215 | 1,894,302 |
| Railsplitter Tobacco Settlement Authority, RB, 6.00%, 06/01/21 ^(a) | 2,645 | 2,890,086 |
| Regional Transportation Authority, RB: Series A (AMBAC), 7.20%, 11/01/20 | 850 | 909,271 |
| Series C (NPFGC), 7.75%, 06/01/20 | 1,545 | 1,630,114 |
| State of Illinois, GO, Series D, 5.00%, 11/01/28 | 1,965 | 2,071,778 |
| State of Illinois Toll Highway Authority, RB, Series A, 5.00%, 01/01/42 | 7,990 | 8,780,690 |
| Village of Hodgkins Illinois, RB, Metropolitan Biosolids Management LLC Project, AMT, 6.00%, 11/01/23 | 8,565 | 8,574,079 |
| | | 70,096,670 |
| Indiana 1.7% | | |
| City of Valparaiso Indiana, RB, Exempt Facilities, Pratt Paper LLC Project, AMT, 6.75%, 01/01/34 | 2,250 | 2,565,922 |
| County of Allen Indiana, RB, StoryPoint Fort Wayne Project, Series A-1 ^(b) : 6.63%, 01/15/34 | 700 | 731,374 |
| 6.75%, 01/15/43 | 570 | 594,499 |
| State of Indiana Finance Authority, RB, Private Activity Bond, Ohio River Bridges, Series A, AMT, 5.00%, 07/01/40 | 2,640 | 2,767,301 |
| | <i>Par (000)</i> | <i>Value</i> |
| Indiana (continued) | | |
| State of Indiana Finance Authority, Refunding RB, Deaconess Health System, Series A, 5.00%, 03/01/39 | \$ 3,000 | \$ 3,245,370 |
| | | 9,904,466 |
| Iowa 1.6% | | |
| Iowa Finance Authority, Refunding RB, Midwestern Disaster Area, Iowa Fertilizer Co. Project, 5.25%, 12/01/25 | 4,000 | 4,224,200 |
| Iowa Tobacco Settlement Authority, Refunding RB, Asset-Backed, CAB, Series B, 5.60%, 06/01/34 | 1,000 | 1,000,250 |

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| State of Iowa Finance Authority, RB, Lifespace Communities, Series A, 5.00%, 05/15/48 | 3,950 | 4,042,786 |
| | | 9,267,236 |
| Kansas 1.0% | | |
| City of Lenexa Kansas, Refunding RB, Lakeview Village, Inc., Series A, 5.00%, 05/15/43 | 1,965 | 1,983,825 |
| Wyandotte County-Kansas City Unified Government Utility System, RB, Series A, 5.00%, 09/01/40 | 3,700 | 4,073,737 |
| | | 6,057,562 |
| Kentucky 2.7% | | |
| County of Owen Kentucky, RB, Kentucky American Water Co. Project, Series B, 5.63%, 09/01/39 | 1,000 | 1,024,760 |
| Kentucky Economic Development Finance Authority, Refunding RB, Hospital Facilities, St. Elizabeth Medical Center, Inc., Series A, 5.50%, 05/01/19 ^(a) | 8,000 | 8,117,360 |
| Lexington-Fayette Urban County Airport Board, Refunding GARB, Series A, 5.00%, 07/01/19 ^(a) | 7,000 | 7,127,890 |
| | | 16,270,010 |
| Louisiana 3.4% | | |
| Louisiana Local Government Environmental Facilities & Community Development Authority, RB, Westlake Chemical Corp. Project, Series A-1, 6.50%, 11/01/35 | 2,615 | 2,793,500 |
| Parish of St. Charles Louisiana, RB, Valero Energy Corp., 4.00%, 12/01/40 ^(d) | 2,210 | 2,299,129 |
| Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A: 5.25%, 05/15/31 | 3,420 | 3,595,241 |
| 5.25%, 05/15/32 | 4,375 | 4,655,175 |

Schedule of Investments (unaudited) (continued)

BlackRock MuniVest Fund, Inc. (MVF)

November 30, 2018

(Percentages shown are based on Net Assets)

| <i>Security</i> | <i>Par (000)</i> | <i>Value</i> |
|--|----------------------|--------------|
| Louisiana (continued) | | |
| Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, Series A (continued): | | |
| 5.25%, 05/15/33 | \$ 4,750 | \$ 5,020,797 |
| 5.25%, 05/15/35 | 1,500 | 1,585,245 |
| | | 19,949,087 |
| Maine 1.1% | | |
| Maine Health & Higher Educational Facilities Authority, RB, Series A: | | |
| 5.00%, 07/01/19 ^(a) | 1,560 | 1,587,596 |
| 5.00%, 07/01/39 | 3,440 | 3,489,330 |
| Portland Housing Development Corp., Refunding RB, Senior Living, Retirement Facilities, Series A, 6.00%, 02/01/34 | 1,190 | 1,191,440 |
| | | 6,268,366 |
| Maryland 3.2% | | |
| City of Baltimore Maryland, Refunding RB, East Baltimore Research Park, Series A, 4.50%, 09/01/33 | | |
| | 545 | 552,047 |
| County of Howard Maryland Housing Commission, RB, M/F Housing, Woodfield Oxford Square Apartments, 5.00%, 12/01/42 | | |
| | 4,935 | 5,351,169 |
| Maryland Health & Higher Educational Facilities Authority, Refunding RB: | | |
| Charlestown Community Project, 6.25%, 01/01/21 ^(a) | 2,000 | 2,166,340 |
| Meritus Medical Center Issue, 5.00%, 07/01/40 | 6,350 | 6,745,541 |
| University of Maryland Medical System, 5.00%, 07/01/19 ^(a) | 1,990 | 2,025,422 |
| University of Maryland Medical System, 5.13%, 07/01/19 ^(a) | 2,100 | 2,138,871 |
| | | 18,979,390 |
| Massachusetts 2.3% | | |
| Massachusetts Bay Transportation Authority, Refunding RB, General Transportation System, Series A, 7.00%, 03/01/19 | | |
| | 370 | 374,647 |
| Massachusetts Development Finance Agency, RB: | | |
| Emerson College Issue, Series A, 5.00%, 01/01/47 | 845 | 892,050 |
| Emerson College Issue, Series A, 5.25%, 01/01/42 | 1,895 | 2,040,763 |
| UMass Dartmouth Student Housing Project, 5.00%, 10/01/43 | 4,480 | 4,695,936 |
| | <i>Par</i> | <i>Value</i> |
| <i>Security</i> | <i>(000)</i> | |
| Massachusetts (continued) | | |
| Massachusetts Development Finance Agency, Refunding RB, Emerson College, Series A, 5.00%, 01/01/40 | | |
| | \$ 2,180 | \$ 2,329,068 |
| Massachusetts HFA, Refunding RB, Series C, AMT, 5.35%, 12/01/42 | 2,120 | 2,136,960 |
| Massachusetts Water Resources Authority, RB, Series A, 6.50%, 07/15/19 ^(c) | 1,070 | 1,100,538 |
| | | 13,569,962 |
| Michigan 0.7% | | |

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| City of Detroit Michigan Water Supply System Revenue, RB, 2nd Lien, Series B (AGM), 6.25%, 07/01/19 ^(a) | 2,495 | 2,556,876 |
| State of Michigan Strategic Fund, RB, I-75 Improvement Projects, AMT, 5.00%, 06/30/48 | 1,775 | 1,876,779 |
| | | 4,433,655 |
| Minnesota 0.7% | | |
| City of Cologne Minnesota Charter School, LRB, Cologne Academy Project, Series A, 5.00%, 07/01/45 | 1,500 | 1,434,120 |
| County of St. Paul Minnesota Housing & Redevelopment Authority, Refunding RB, Fairview Health Services, Series A, 4.00%, 11/15/43 | 1,940 | 1,911,171 |
| Housing & Redevelopment Authority of The City of Saint Paul Minnesota, RB, Great River School Project, Series A, 5.50%, 07/01/52 ^(b) | 695 | 693,909 |
| | | 4,039,200 |
| Mississippi 4.7% | | |
| County of Lowndes Mississippi, Refunding RB, Solid Waste Disposal & Pollution Control, Weyerhaeuser Co. Project: | | |
| Series A, 6.80%, 04/01/22 | 9,160 | 10,222,469 |
| Series B, 6.70%, 04/01/22 | 4,500 | 5,007,825 |
| Mississippi Business Finance Corp., Refunding RB, System Energy Resource, Inc. Project, 5.88%, 04/01/22 | 9,305 | 9,322,307 |

Schedule of Investments (unaudited) (continued)

BlackRock MuniVest Fund, Inc. (MVF)

November 30, 2018

(Percentages shown are based on Net Assets)

| <i>Security</i> | <i>Par (000)</i> | <i>Value</i> |
|---|----------------------|--------------|
| Mississippi (continued) | | |
| Mississippi Development Bank, Refunding RB, Municipal Energy Agency Of Mississippi, Series A (AGM), 4.00%, 03/01/41 | \$ 3,000 | \$ 2,995,470 |
| | | 27,548,071 |
| Montana 0.3% | | |
| Montana State Board of Housing, RB, S/F, Series B-2: | | |
| 3.38%, 12/01/37 | 785 | 754,566 |
| 3.50%, 12/01/42 | 335 | 315,741 |
| 3.60%, 12/01/47 | 515 | 478,996 |
| | | 1,549,303 |
| Nebraska 1.1% | | |
| Central Plains Nebraska Energy Project, RB, Gas Project No. 3, 5.00%, 09/01/42 | 6,200 | 6,667,356 |
| Nevada 1.3% | | |
| City of Carson City Nevada, Refunding RB, Carson Tahoe Regional Healthcare Project, 5.00%, 09/01/42 | 1,150 | 1,232,627 |
| County of Clark Nevada, GO, Stadium Improvement, Series A: | | |
| 5.00%, 06/01/36 | 4,080 | 4,650,466 |
| 5.00%, 06/01/37 | 1,500 | 1,704,615 |
| | | 7,587,708 |
| New Jersey 12.0% | | |
| Casino Reinvestment Development Authority, Refunding RB, 5.25%, 11/01/44 | 1,400 | 1,471,666 |
| New Jersey EDA, RB: | | |
| Continental Airlines, Inc. Project, Series A, AMT, 5.63%, 11/15/30 | 1,530 | 1,709,928 |
| Goethals Bridge Replacement Project, AMT, Private Activity Bond, 5.38%, 01/01/43 | 10,000 | 10,677,600 |
| Goethals Bridge Replacement Project, AMT, Private Activity Bond, 5.13%, 01/01/34 | 1,050 | 1,115,132 |
| School Facilities Construction, Series UU, 5.00%, 06/15/40 | 3,390 | 3,503,192 |
| New Jersey EDA, Refunding RB, School Facilities Construction: | | |
| 5.25%, 06/15/19 ^(a) | 2,650 | 2,697,620 |
| Series AA, 5.25%, 06/15/19 ^(a) | 700 | 712,579 |
| Series AA, 5.25%, 12/15/33 | 6,650 | 6,740,573 |
| New Jersey Housing & Mortgage Finance Agency, Refunding RB, S/F Housing, Series BB, AMT, 3.80%, 10/01/32 | 4,880 | 4,817,731 |
| | <i>Par</i> | |
| <i>Security</i> | <i>(000)</i> | <i>Value</i> |
| New Jersey (continued) | | |
| New Jersey Transportation Trust Fund Authority, RB: | | |
| CAB, Transportation System, Series A, 0.00%, 12/15/38 ^(c) | \$ 7,260 | \$ 2,742,320 |
| Transportation Program, Series AA, 5.25%, 06/15/33 | 8,750 | 9,357,250 |
| Transportation Program, Series AA, 5.25%, 06/15/41 | 780 | 822,611 |

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| Transportation Program, Series AA, 5.00%, 06/15/44 | 4,450 | 4,607,441 |
| Transportation System, Series B, 5.50%, 06/15/31 | 8,000 | 8,476,640 |
| New Jersey Transportation Trust Fund Authority, Refunding RB, Transportation System, Series A, 5.00%, 12/15/32 | 5,430 | 5,857,504 |
| Tobacco Settlement Financing Corp., Refunding RB: | | |
| Series A, 5.25%, 06/01/46 | 4,550 | 4,822,044 |
| Sub-Series B, 5.00%, 06/01/46 | 665 | 665,845 |
| | | 70,797,676 |
| New York 5.4% | | |
| Build NYC Resource Corp., Refunding RB, Pratt Paper, Inc. Project, AMT, 5.00%, 01/01/35 ^(b) | 2,145 | 2,256,068 |
| City of New York Water & Sewer System, Refunding RB, 2nd General Resolution, Series FF-2, 5.50%, 06/15/40 | 4,150 | 4,219,139 |
| Counties of New York Tobacco Trust IV, Refunding RB, Settlement Pass-Through Turbo, Series A, 6.25%, 06/01/41 ^(b) | 3,500 | 3,585,365 |
| Erie Tobacco Asset Securitization Corp., Refunding RB, Asset-Backed, Series A, 5.00%, 06/01/45 | 4,435 | 4,228,906 |
| New York Counties Tobacco Trust IV, Refunding RB, Tobacco Settlement Pass-Through Bonds, Series A, 5.00%, 06/01/38 | 3,675 | 3,486,399 |
| New York Liberty Development Corp., Refunding RB, 3 World Trade Center Project, Class 2 ^(b) : | | |
| 5.15%, 11/15/34 | 460 | 478,359 |
| 5.38%, 11/15/40 | 1,145 | 1,195,529 |
| New York Transportation Development Corp., Refunding ARB, American Airlines, Inc., AMT, 5.00%, 08/01/31 | 3,070 | 3,168,455 |
| Port Authority of New York & New Jersey, ARB, Special Project, JFK International Air Terminal LLC Project, Series 8, 6.00%, 12/01/36 | 3,165 | 3,380,188 |

Schedule of Investments (unaudited) (continued)

BlackRock MuniVest Fund, Inc. (MVF)

November 30, 2018

(Percentages shown are based on Net Assets)

| <i>Security</i> | <i>Par (000)</i> | <i>Value</i> |
|--|----------------------|--------------|
| New York (continued) | | |
| TSASC, Inc., Refunding RB: | | |
| Series A, 5.00%, 06/01/41 | \$ 1,785 | \$ 1,820,878 |
| Tobacco Settlement Bonds, Series B, 5.00%, 06/01/48 | 1,420 | 1,350,704 |
| Westchester New York Tobacco Asset Securitization, Refunding RB, Tobacco Settlement Bonds, Sub-Series C, 5.13%, 06/01/51 | 2,740 | 2,761,564 |
| | | 31,931,554 |
| Ohio 4.2% | | |
| Buckeye Tobacco Settlement Financing Authority, RB, Asset-Backed, Senior Turbo Term, Series A-2: | | |
| 5.75%, 06/01/34 | 950 | 887,395 |
| 5.88%, 06/01/47 | 2,525 | 2,389,483 |
| County of Allen Ohio Hospital Facilities Revenue, Refunding RB, Catholic Healthcare Partners, Series A, 5.25%, 06/01/20 ^(a) | 2,875 | 3,008,170 |
| County of Butler Port Authority, RB, StoryPoint Fairfield Project, Series A-1 ^(b) : | | |
| 6.38%, 01/15/43 | 675 | 687,980 |
| 6.50%, 01/15/52 | 390 | 398,334 |
| County of Franklin Ohio, RB, Health Care Facilities Improvement, OPRS Communities Obligation Group, Series A, 6.13%, 07/01/40 | 1,690 | 1,803,821 |
| County of Lucas Ohio, Refunding RB, Promedica Healthcare, Series A, 6.50%, 11/15/21 ^(a) | 1,915 | 2,151,637 |
| County of Montgomery Ohio, RB, Catholic Health Initiatives, Series D-2, 5.45%, 10/01/38 | 7,430 | 8,041,935 |
| County of Montgomery Ohio, Refunding RB, Catholic Health: | | |
| 5.50%, 05/01/19 ^(a) | 1,910 | 1,937,638 |
| Series A, 5.50%, 05/01/34 | 3,560 | 3,607,918 |
| | | 24,914,311 |
| Oklahoma 0.9% | | |
| Oklahoma Development Finance Authority, RB: | | |
| OU Medicine Project, Series B, 5.25%, 08/15/48 | 2,205 | 2,350,618 |
| | <i>Par (000)</i> | <i>Value</i> |
| Security | | |
| Oklahoma (continued) | | |
| Oklahoma Development Finance Authority, RB (continued): | | |
| Provident Oklahoma Education Resources, Inc., Cross Village Student Housing Project, Series A, 5.25%, 08/01/57 | \$ 3,275 | \$ 3,009,037 |
| | | 5,359,655 |
| Pennsylvania 8.0% | | |
| Allentown Neighborhood Improvement Zone Development Authority, RB, City Center Project, 5.00%, 05/01/42 ^(b) | 1,725 | 1,789,653 |
| Altoona Area School District, GO, 5.00%, 12/01/36 | 365 | 398,930 |
| County of Delaware Pennsylvania IDA, Refunding RB, Covanta Project, 5.00%, 07/01/43 | 5,000 | 5,021,600 |

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| | | |
|--|-------|-----------|
| County of Delaware Springfield School District, GO: | | |
| 5.00%, 03/01/40 | 2,955 | 3,314,653 |
| 5.00%, 03/01/43 | 2,145 | 2,397,080 |
| County of Montgomery Higher Education & Health Authority, Refunding RB, Thomas Jefferson University, Series A, 5.00%, 09/01/48 | 3,330 | 3,617,046 |
| County of Montgomery Pennsylvania IDA, Refunding RB, Whitemarsh Continuing Care Retirement Community, 5.25%, 01/01/40 | 4,170 | 4,050,821 |
| County of Northampton Pennsylvania General Purpose Authority, Refunding RB, Lafayette College, 4.00%, 11/01/38 | 1,855 | 1,875,108 |
| County of Westmoreland Pennsylvania Municipal Authority, Refunding RB, (BAM), 5.00%, 08/15/36 | 4,385 | 4,891,731 |
| Pennsylvania Economic Development Financing Authority, RB, Pennsylvania Rapid Bridge Replacement, 5.00%, 12/31/38 | 2,565 | 2,696,841 |
| Pennsylvania HFA, RB, S/F Housing Mortgage, Series 118-B, 4.05%, 10/01/40 | 3,850 | 3,864,784 |
| Pennsylvania Housing Finance Agency, RB, S/F, Series 125B, 3.65%, 10/01/42 | 7,000 | 6,677,440 |
| Pennsylvania Turnpike Commission, RB: Series A-1, 5.00%, 12/01/41 | 440 | 476,529 |

Schedule of Investments (unaudited) (continued)

BlackRock MuniVest Fund, Inc. (MVF)

November 30, 2018

(Percentages shown are based on Net Assets)

| <i>Security</i> | <i>Par (000)</i> | <i>Value</i> |
|--|----------------------|--------------|
| Pennsylvania (continued) | | |
| Pennsylvania Turnpike Commission, RB (continued): | | |
| Sub-Series B-1, 5.25%, 06/01/47 | \$ 5,680 | \$ 6,135,991 |
| | | 47,208,207 |
| Puerto Rico 1.0% | | |
| Children's Trust Fund, Refunding RB, Tobacco Settlement Asset-Backed Bonds: | | |
| 5.50%, 05/15/39 | 3,555 | 3,563,283 |
| 5.63%, 05/15/43 | 2,170 | 2,174,036 |
| | | 5,737,319 |
| Rhode Island 1.4% | | |
| Tobacco Settlement Financing Corp., Refunding RB, Series B: | | |
| 4.50%, 06/01/45 | 6,820 | 6,275,355 |
| 5.00%, 06/01/50 | 2,000 | 1,992,500 |
| | | 8,267,855 |
| South Carolina 2.1% | | |
| South Carolina Jobs EDA, Refunding RB, Prisma Health Obligated Group, Series A, | | |
| 5.00%, 05/01/43 | 3,810 | 4,079,252 |
| South Carolina Jobs-Economic Development Authority, Refunding RB, Prisma Health | | |
| Obligated Group, 4.25%, 05/01/48 | 675 | 653,029 |
| State of South Carolina Public Service Authority, RB, Series E, 5.50%, 12/01/53 | 750 | 794,880 |
| State of South Carolina Public Service Authority, Refunding RB, Series E, 5.25%, 12/01/55 | 6,450 | 6,840,612 |
| | | 12,367,773 |
| Texas 12.5% | | |
| Central Texas Regional Mobility Authority, RB, Senior Lien, Series A: | | |
| 5.00%, 01/01/40 | 1,215 | 1,298,361 |
| 5.00%, 01/01/45 | 3,500 | 3,725,470 |
| Central Texas Regional Mobility Authority, Refunding RB, Senior Lien: | | |
| 5.75%, 01/01/21 ^(a) | 1,000 | 1,072,020 |
| 6.00%, 01/01/21 ^(a) | 4,300 | 4,631,401 |
| Series A, 5.00%, 01/01/43 | 6,925 | 7,324,226 |
| City of Houston Texas Airport System, Refunding ARB, United Airlines, Inc. Terminal E | | |
| Project, AMT, 5.00%, 07/01/29 | 2,665 | 2,860,211 |
| City of Houston Texas Airport System Revenue, Refunding RB, Sub-Series D, | | |
| 5.00%, 07/01/37 | 4,005 | 4,529,775 |
| | <i>Par (000)</i> | <i>Value</i> |
| Texas (continued) | | |
| County of Harris Texas Cultural Education Facilities Finance Corp., RB, 1st Mortgage, Brazos | | |
| Presbyterian Homes, Inc. Project, Series B, 7.00%, 01/01/23 ^(a) | \$ 850 | \$ 1,003,808 |

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| | | |
|--|-------|-----------|
| County of Harris Texas Health Facilities Development Corp., Refunding RB, Memorial Hermann Healthcare System, Series B, 7.13%, 12/01/18 ^(a) | 3,500 | 3,500,000 |
| County of Tarrant Texas Cultural Education Facilities Finance Corp., RB, Scott & White Healthcare, 6.00%, 08/15/20 ^(a) | 4,630 | 4,938,173 |
| County of Tarrant Texas Cultural Education Facilities Finance Corp., Refunding RB, Trinity Terrace Project, 5.00%, 10/01/44 | 3,500 | 3,637,655 |
| La Vernia Higher Education Finance Corp., RB, KIPP, Inc., Series A, 6.25%, 08/15/19 ^(a) | 925 | 952,186 |
| Love Field Airport Modernization Corp., RB, Southwest Airlines Co. Project, 5.25%, 11/01/40 | 1,100 | 1,140,568 |
| New Hope Cultural Education Facilities Corp., RB: | | |
| Collegiate Housing Tarleton State University Project, 5.00%, 04/01/35 | 500 | 520,295 |
| Jubilee Academic Center Project, Series A, 5.00%, 08/15/37 ^(b) | 2,000 | 1,975,920 |
| New Hope Cultural Education Facilities Corp., Refunding RB, 1st Mortgage, Morningside Ministries Project, 6.25%, 01/01/33 | 1,600 | 1,731,568 |
| North Texas Education Finance Corp., ERB, Uplift Education, Series A, 5.13%, 12/01/42 | 1,000 | 1,034,340 |
| North Texas Tollway Authority, Refunding RB, Series A: | | |
| 1st Tier System, 6.25%, 01/01/19 ^(a) | 2,845 | 2,854,588 |
| 1st Tier System, 6.25%, 01/01/39 | 655 | 656,952 |
| 1st Tier, 5.00%, 01/01/48 | 5,350 | 5,858,999 |
| 5.00%, 01/01/38 | 5,000 | 5,440,550 |
| Texas Private Activity Bond Surface Transportation Corp., RB, Senior Lien: | | |
| LBJ Infrastructure Group LLC, 7.00%, 06/30/40 | 8,000 | 8,497,760 |

Schedule of Investments (unaudited) (continued)

BlackRock MuniVest Fund, Inc. (MVF)

November 30, 2018

(Percentages shown are based on Net Assets)

| <i>Security</i> | <i>Par (000)</i> | <i>Value</i> |
|---|----------------------|--------------|
| Texas (continued) | | |
| Texas Private Activity Bond Surface Transportation Corp., RB, Senior Lien (continued): | | |
| NTE Mobility Partners LLC, North Tarrant Express Managed Lanes Project, 6.88%, 12/31/39 | \$ 4,710 | \$ 4,906,595 |
| | | 74,091,421 |
| Vermont 0.9% | | |
| University of Vermont & State Agricultural College, Refunding RB, 5.00%, 10/01/43 | 4,995 | 5,578,066 |
| Virginia 4.3% | | |
| Ballston Quarter Community Development Authority, Tax Allocation Bonds, Series A: | | |
| 5.38%, 03/01/36 | 430 | 439,292 |
| 5.50%, 03/01/46 | 1,475 | 1,506,831 |
| City of Portsmouth Virginia, GO, Refunding Series D, 5.00%, 07/15/20 ^(a) | 3,030 | 3,174,592 |
| County of Fairfax Virginia IDA, Refunding RB, Health Care-Inova Health, 5.50%, 05/15/19 ^(a) | 735 | 747,017 |
| Tobacco Settlement Financing Corp., Refunding RB, Senior Series B-1, 5.00%, 06/01/47 | 3,665 | 3,473,870 |
| Virginia Small Business Financing Authority, RB, AMT: | | |
| Senior Lien, Elizabeth River Crossings OpCo LLC Project, 6.00%, 01/01/37 | 2,150 | 2,322,323 |
| Senior Lien, Elizabeth River Crossings OpCo LLC Project, 5.50%, 01/01/42 | 5,140 | 5,437,400 |
| Transform 66 P3 Project, 5.00%, 12/31/49 | 7,895 | 8,247,196 |
| | | 25,348,521 |
| Washington 3.8% | | |
| Port of Seattle Washington, ARB, AMT: | | |
| Intermediate Lien, Series C, 5.00%, 05/01/37 | 4,905 | 5,406,536 |
| Series A, 5.00%, 05/01/43 | 1,295 | 1,399,429 |
| State of Washington, COP, Series B: | | |
| 5.00%, 07/01/36 | 1,725 | 1,949,215 |
| 5.00%, 07/01/38 | 2,300 | 2,564,040 |
| Washington Health Care Facilities Authority, RB, Catholic Health Initiatives, Series A, 5.75%, 01/01/45 | 4,010 | 4,357,226 |
| | <i>Par (000)</i> | <i>Value</i> |
| Washington (continued) | | |
| Washington Health Care Facilities Authority, Refunding RB, Catholic Health Initiatives, Series D, 6.38%, 10/01/36 | \$ 7,000 | \$ 7,020,790 |
| | | 22,697,236 |
| West Virginia 0.4% | | |
| West Virginia Hospital Finance Authority, Refunding RB, Improvement, Charleston Area Medical Center, Inc., Series A, 5.63%, 09/01/32 | 2,500 | 2,552,750 |
| Wisconsin 1.8% | | |

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| | | |
|--|-------|-------------|
| Wisconsin Health & Educational Facilities Authority, Refunding RB: | | |
| Froedtert & Community Health, Inc., Obligated Group: Series C, 5.25%, 04/01/19 ^(a) | 6,100 | 6,167,466 |
| Milwaukee Regional Medical Center Thermal Service, 5.00%, 04/01/44 | 4,080 | 4,516,438 |
| | | 10,683,904 |
| Wyoming 1.4% | | |
| County of Sweetwater Wyoming, Refunding RB, Idaho Power Co. Project, Remarketing, 5.25%, 07/15/26 | 4,500 | 4,597,020 |
| State of Wyoming Municipal Power Agency, Inc., Refunding RB, Series A (BAM), 5.00%, 01/01/42 | 1,120 | 1,227,721 |
| Wyoming Community Development Authority, Refunding RB, Series 2 & 3, 4.05%, 12/01/38 | 2,215 | 2,229,863 |
| | | 8,054,604 |
| Total Municipal Bonds 124.3% | | |
| (Cost \$717,999,976) | | 735,184,010 |

Schedule of Investments (unaudited) (continued)

BlackRock MuniVest Fund, Inc. (MVF)

November 30, 2018

(Percentages shown are based on Net Assets)

| <i>Security</i> | <i>Par (000)</i> | <i>Value</i> |
|---|----------------------|---------------|
| Municipal Bonds Transferred to Tender Option Bond Trusts (f) 34.7% | | |
| Arizona 0.6% | | |
| City of Phoenix Civic Improvement Corp., Refunding RB, Water System, Junior Lien, Series A, 5.00%, 07/01/19 ^(a) | \$ 3,500 | \$ 3,562,720 |
| California 6.3% | | |
| Sacramento Area Flood Control Agency, Refunding, Consolidated Capital Assessment District No. 2 Bonds, 5.00%, 10/01/47 | 14,998 | 16,649,425 |
| University of California, RB, Series O ^(a) : General, 5.25%, 05/15/19 | 5,675 | 5,773,404 |
| Prefunded -General, 5.25%, 05/15/19 | 3,235 | 3,291,095 |
| Unrefunded Balance-2016, General, 5.25%, 05/15/19 | 11,090 | 11,282,301 |
| | | 36,996,225 |
| Colorado 1.2% | | |
| City & County of Denver Colorado Airport System Revenue, Refunding ARB, Sub-System, Series A, AMT, 5.25%, 12/01/43 ^(g) | 6,504 | 7,306,855 |
| Florida 2.6% | | |
| County of Miami-Dade Florida Water & Sewer System, RB, (AGM), 5.00%, 10/01/20 ^(a) | 14,747 | 15,551,766 |
| Illinois 2.0% | | |
| State of Illinois Toll Highway Authority, RB, Series B, 5.00%, 01/01/40 | 10,976 | 11,933,931 |
| Kentucky 1.6% | | |
| County of Louisville & Jefferson Kentucky Metropolitan Government Parking Authority, RB, River City, Inc., 1st Mortgage, Series A, 5.38%, 12/01/19 ^(a) | 9,195 | 9,500,672 |
| Maryland 0.9% | | |
| City of Baltimore Maryland, RB, Wastewater Project, Series A, 5.00%, 07/01/46 | 4,898 | 5,417,063 |
| Nevada 2.7% | | |
| County of Clark Nevada Water Reclamation District, GO, Series B, 5.75%, 07/01/19 ^(a) | 15,789 | 16,145,312 |
| | <i>Par (000)</i> | <i>Value</i> |
| New York 1.8% | | |
| New York Liberty Development Corp., Refunding RB, 4 World Trade Center Project, 5.75%, 11/15/51 ^(g) | \$ 10,001 | \$ 10,903,395 |
| North Carolina 0.9% | | |

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| | | |
|--|--------|------------|
| North Carolina Capital Facilities Finance Agency, Refunding RB, Wake Forest University, 5.00%, 01/01/19 ^(a) | 5,000 | 5,012,150 |
| Ohio 1.4% | | |
| State of Ohio, RB, Cleveland Clinic Health Obligated Group, Series B, 5.50%, 01/01/34 | 8,500 | 8,523,035 |
| Oregon 0.7% | | |
| State of Oregon Housing & Community Services Department, HRB, M/F Housing, Series A, AMT, 4.95%, 07/01/30 | 3,898 | 3,951,909 |
| Pennsylvania 2.0% | | |
| Commonwealth of Pennsylvania, GO, 1st Series, 4.00%, 03/01/38 ^(g) | 7,250 | 7,311,081 |
| County of Westmoreland Pennsylvania Municipal Authority, Refunding RB, (BAM), 5.00%, 08/15/38 | 3,925 | 4,282,630 |
| | | 11,593,711 |
| Texas 5.9% | | |
| City of Houston Texas Higher Education Finance Corp., RB, Rice University Project, Series A, 5.00%, 05/15/20 ^(a) | 10,000 | 10,421,341 |
| County of Harris Texas Health Facilities Development Corp., Refunding RB, School Health Care System, Series B, 5.75%, 07/01/27 ^(e) | 20,370 | 24,307,012 |
| | | 34,728,353 |
| Virginia 2.2% | | |
| County of Fairfax Virginia EDA, RB, Metrorail Parking System Project, 5.00%, 04/01/47 ^(g) | 6,960 | 7,736,458 |

Schedule of Investments (unaudited) (continued)

BlackRock MuniVest Fund, Inc. (MVF)

November 30, 2018

(Percentages shown are based on Net Assets)

| <i>Security</i> | <i>Par (000)</i> | <i>Value</i> |
|--|----------------------|----------------|
| Virginia (continued) | | |
| Virginia Small Business Financing Authority, Refunding RB, Sentara Healthcare, 5.00%, 11/01/40 | \$ 5,002 | \$ 5,192,311 |
| | | 12,928,769 |
| Washington 1.9% | | |
| Washington Health Care Facilities Authority, Refunding RB, Seattle Children's Hospital, Series B, 5.00%, 10/01/38 | 10,000 | 11,278,700 |
| Total Municipal Bonds Transferred to Tender Option Bond Trusts 34.7% (Cost \$198,866,896) | | 205,334,566 |
| Total Long-Term Investments 159.0% (Cost \$916,866,872) | | 940,518,576 |
| <i>Security</i> | <i>Shares</i> | <i>Value</i> |
| Short-Term Securities 0.1% | | |
| BlackRock Liquidity Funds, MuniCash, Institutional Class, 1.55% ^{(h)(i)} | 251,444 | \$ 251,469 |
| Total Short-Term Securities 0.1% (Cost \$251,469) | | 251,469 |
| Total Investments 159.1% (Cost \$917,118,341) | | 940,770,045 |
| Other Assets Less Liabilities 0.3% | | 1,927,717 |
| Liability for TOB Trust Certificates, Including | | |
| Interest Expense and Fees Payable (18.2)% | | (107,634,893) |
| VMTP Shares, at Liquidation Value (41.2)% | | (243,800,000) |
| Net Assets Applicable to Common Shares 100.0% | | \$ 591,262,869 |

(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) Security exempt from registration pursuant to Rule 144A under the Securities Act of 1933, as amended. These securities may be resold in transactions exempt from registration to qualified institutional investors.

(c) Zero-coupon bond.

(d) Variable or floating rate security, which interest rate adjusts periodically based on changes in current interest rates and prepayments on the underlying pool of assets. Rate shown is the rate in effect as of period end.

(e) Security is collateralized by municipal bonds or U.S. Treasury obligations.

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- (f) Represent bonds transferred to a TOB Trust in exchange of cash and residual certificates received by the Trust. These bonds serve as collateral in a secured borrowing.
- (g) All or a portion of security is subject to a recourse agreement. The aggregate maximum potential amount the Trust could ultimately be required to pay under the agreements, which expire between November 15, 2019 to June 1, 2026, is \$16,153,828.
- (h) Annualized 7-day yield as of period end.
- (i) During the period ended November 30, 2018, investments in issuers considered to be an affiliate of the Trust for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

| | <i>Shares</i> | | <i>Shares</i> | | <i>Value at</i> <i>11/30/18</i> | <i>Income</i> | <i>Net</i> <i>Realized</i> <i>Gain (Loss) ^(a)</i> | <i>Change in</i> <i>Unrealized</i> <i>Appreciation</i> <i>(Depreciation)</i> |
|---|-----------------------------------|-------------------------------|-----------------------------------|------------|------------------------------------|---------------|--|---|
| | <i>Held at</i> <i>08/31/18</i> | <i>Net</i> <i>Activity</i> | <i>Held at</i> <i>11/30/18</i> | | | | | |
| <i>Affiliate</i> BlackRock Liquidity Funds, MuniCash, Institutional Class | 159,172 | 92,272 | 251,444 | \$ 251,469 | \$ 12,371 | \$ | \$ | |

(a) Includes net capital gain distributions, if applicable.

Schedule of Investments (unaudited) (continued)

BlackRock MuniVest Fund, Inc. (MVF)

November 30, 2018

Portfolio Abbreviations

AGM Assured Guaranty Municipal Corp.

AMBAC American Municipal Bond Assurance Corp.

AMT Alternative Minimum Tax (subject to)

ARB Airport Revenue Bonds

BAM Build America Mutual Assurance Co.

CAB Capital Appreciation Bonds

COP Certificates of Participation

EDA Economic Development Authority

ERB Education Revenue Bonds

GARB General Airport Revenue Bonds

GO General Obligation Bonds

HFA Housing Finance Agency

HRB Housing Revenue Bonds

IDA Industrial Development Authority

IDB Industrial Development Board

LRB Lease Revenue Bonds

M/F Multi-Family

NPFGC National Public Finance Guarantee Corp.

RB Revenue Bonds

S/F Single-Family

Derivative Financial Instruments Outstanding as of Period End

Futures Contracts

| <i>Description</i> | <i>Number of Contracts</i> | <i>Expiration Date</i> | <i>Notional Amount (000)</i> | <i>Value/ Unrealized Appreciation (Depreciation)</i> |
|----------------------------|--------------------------------|----------------------------|----------------------------------|--|
| Short Contracts: | | | | |
| 10-Year U.S. Treasury Note | 69 | 03/20/19 | \$ 8,242 | \$ (17,353) |
| Long U.S. Treasury Bond | 191 | 03/20/19 | 26,722 | (114,569) |
| 5-Year U.S. Treasury Note | 30 | 03/29/19 | 3,389 | (4,797) |
| | | | | \$ (136,719) |

Schedule of Investments (unaudited) (continued)

BlackRock MuniVest Fund, Inc. (MVF)

November 30, 2018

Fair Value Hierarchy as of Period End

Various inputs are used in determining the fair value of investments and derivative financial instruments. These inputs to valuation techniques are categorized into a fair value hierarchy consisting of three broad levels for financial reporting purposes as follows:

Level 1 Unadjusted price quotations in active markets/exchanges for identical assets or liabilities that the Trust has the ability to access

Level 2 Other observable inputs (including, but not limited to, quoted prices for similar assets or liabilities in markets that are active, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the assets or liabilities (such as interest rates, yield curves, volatilities, prepayment speeds, loss severities, credit risks and default rates) or other market-corroborated inputs)

Level 3 Unobservable inputs based on the best information available in the circumstances, to the extent observable inputs are not available (including the Trust's own assumptions used in determining the fair value of investments and derivative financial instruments)

The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). Accordingly, the degree of judgment exercised in determining fair value is greatest for instruments categorized in Level 3. The inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, for disclosure purposes, the fair value hierarchy classification is determined based on the lowest level input that is significant to the fair value measurement in its entirety. Investments classified within Level 3 have significant unobservable inputs used by the BlackRock Global Valuation Methodologies Committee (the Global Valuation Committee) in determining the price for Fair Valued Investments. Level 3 investments include equity or debt issued by privately held companies or funds. There may not be a secondary market, and/or there are a limited number of investors. Level 3 investments may also be adjusted to reflect illiquidity and/or non-transferability, with the amount of such discount estimated by the Global Valuation Committee in the absence of market information.

Changes in valuation techniques may result in transfers into or out of an assigned level within the hierarchy. In accordance with the Trust's policy, transfers between different levels of the fair value hierarchy are deemed to have occurred as of the beginning of the reporting period. The categorization of a value determined for investments and derivative financial instruments is based on the pricing transparency of the investments and derivative financial instruments and is not necessarily an indication of the risks associated with investing in those securities. For information about the Trust's policy regarding valuation of investments and derivative financial instruments, refer to the Trust's most recent financial statements as contained in its annual report.

The following tables summarize the Trust's investments and derivative financial instruments categorized in the disclosure hierarchy:

| | <i>Level 1</i> | <i>Level 2</i> | <i>Level 3</i> | <i>Total</i> |
|---|----------------|----------------|----------------|----------------|
| Assets: | | | | |
| Investments: | | | | |
| Long-Term Investments ^(a) | \$ | \$ 940,518,576 | \$ | \$ 940,518,576 |
| Short-Term Securities | 251,469 | | | 251,469 |
| | \$ 251,469 | \$ 940,518,576 | \$ | \$ 940,770,045 |
| Derivative Financial Instruments ^(b) | | | | |
| Liabilities: | | | | |
| Interest rate contracts | \$ (136,719) | \$ | \$ | \$ (136,719) |

^(a) See above Schedule of Investments for values in each state or political subdivision.

^(b) Derivative financial instruments are futures contracts which are valued at the unrealized appreciation (depreciation) on the instrument.

The Trust may hold assets and/or liabilities in which the fair value approximates the carrying amount for financial reporting purposes. As of period end, such assets and/or liabilities are categorized within the disclosure hierarchy as follows:

| | <i>Level 1</i> | <i>Level 2</i> | <i>Level 3</i> | <i>Total</i> |
|----------------------------------|----------------|------------------|----------------|------------------|
| Liabilities: | | | | |
| TOB Trust Certificates | \$ | \$ (107,312,984) | \$ | \$ (107,312,984) |
| VMTP Shares at Liquidation Value | | (243,800,000) | | (243,800,000) |
| | \$ | \$ (351,112,984) | \$ | \$ (351,112,984) |

During the period ended November 30, 2018, there were no transfers between levels.

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 MuniVest Fund, Inc.

By: /s/ John M. Perlowski
John M. Perlowski
Chief Executive Officer (principal executive officer) of
BlackRock MuniVest Fund, Inc.

Date: January 18, 2019

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/ John M. Perlowski
John M. Perlowski
Chief Executive Officer (principal executive officer) of
BlackRock MuniVest Fund, Inc.

Date: January 18, 2019

By: /s/ Neal J. Andrews
Neal J. Andrews
Chief Financial Officer (principal financial officer) of
BlackRock MuniVest Fund, Inc.

Date: January 18, 2019