BLACKROCK MUNIVEST FUND INC

Form N-CSR

November 08, 2006

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM N-CSR

CERTIFIED SHAREHOLDER REPORT OF REGISTERED MANAGEMENT INVESTMENT COMPANIES

Investment Company Act file number 811-05611

Name of Fund: BlackRock MuniVest Fund, Inc.

Fund Address: P.O. Box 9011

Princeton, NJ 08543-9011

Name and address of agent for service: Robert C. Doll, Jr., Chief Executive Officer, BlackRock MuniVest 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: (609) 282-2800

Date of fiscal year end: 08/31/06

Date of reporting period: 09/01/05 - 08/31/06

 ${\tt Item~1-Report~to~Stockholders}$

ALTERNATIVES BLACKROCK SOLUTIONS EQUITIES FIXED INCOME LIQUIDITY REAL ESTATE

BlackRock MuniVest Fund, Inc. BLACKROCK

ANNUAL REPORT | AUGUST 31, 2006

NOT FDIC INSURED MAY LOSE VALUE NO BANK GUARANTEE

BlackRock MuniVest Fund, Inc.

Portfolio Information as of August 31, 2006

Quality Ratings by	Percent of
S&P/Moody's	Total Investments
AAA/Aaa	26.8%
AA/Aa	19.2
A/A	26.7
BBB/Baa	22.6
BB/Ba	1.8
В/В	1.1

NR	(Not	Rated)	 	 	 	 	 		1.5
Oth	er*		 	 	 	 	 		0.3

* Includes portfolio holdings in variable rate demand notes.

Proxy Results

During the six-month period ended August 31, 2006, BlackRock MuniVest Fund, Inc.'s shareholders voted on the following proposals. Proposals 2 and 3 were approved at a shareholders' meeting on August 15, 2006. A description of the proposals and number of shares voted were as follows:

	Shares Voted For	Shares Voted Against	Sh
2. To approve a new investment advisory agreement.	34,352,517	1,303,728	1
3. To approve a contingent subadvisory agreement.	34,296,617	1,344,757	1

Announcement of Annual Stockholders Meeting

The Fund has determined that its annual stockholders meeting originally scheduled to be held in January 2007 will be postponed until and will be held in June 2007. Proposals of stockholders intended to be presented at the meeting must be received by the Fund by January 15, 2007 for inclusion in the Fund's proxy statement and form of proxy for that meeting. The persons named as proxies in the proxy materials for the Fund's 2007 annual meeting of stockholders may exercise discretionary authority with respect to any stockholder proposal presented at such meeting if written notice of such proposal has not been received by the Fund by April 1, 2007. Written proposals and notices should be sent to the Secretary of the Fund, 800 Scudders Mill Road, Plainsboro, New Jersey 08536.

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AUGUST 31, 2006

A Letter to Shareholders

Dear Shareholder

It is my pleasure to welcome you to BlackRock.

On September 29, 2006, BlackRock, Inc. ("BlackRock") and Merrill Lynch Investment Managers, L.P. ("MLIM") united to form one of the largest asset management firms in the world. Now with more than \$1 trillion in assets under management, over 4,000 employees in 18 countries and representation in key markets worldwide, BlackRock's global presence means greater depth and scale to serve you.

The new BlackRock unites some of the finest money managers in the industry. Our ranks include more than 500 investment professionals globally -- portfolio managers, research analysts, risk management professionals and traders. With offices strategically located around the world, our investment professionals have in-depth local knowledge and the ability to leverage our global presence and robust infrastructure to deliver focused investment solutions. BlackRock's

professional investors are supported by disciplined investment processes and best-in-class technology, ensuring that our portfolio managers are well equipped to research, uncover and capitalize on the opportunities the world's markets have to offer.

The BlackRock culture emphasizes excellence, teamwork and integrity in the management of a variety of equity, fixed income, cash management, alternative investment and real estate products. Our firm's core philosophy is grounded in the belief that experienced investment and risk professionals using disciplined investment processes and sophisticated analytical tools can consistently add value to client portfolios.

As you probably are aware, former MLIM investment products now carry the "BlackRock" name. This is reflected in newspapers and online fund reporting resources. Your account statements will reflect the BlackRock name beginning with the October month-end reporting period. Unless otherwise communicated to you, your funds maintain the same investment objectives that they did prior to the combination of MLIM and BlackRock. Importantly, this union does not affect your brokerage account or your relationship with your financial advisor. Clients of Merrill Lynch remain clients of Merrill Lynch.

We view this combination of asset management leaders as a complementary union that reinforces our commitment to shareholders. Individually, each firm made investment performance its single most important mission. Together, we are even better prepared to capitalize on market opportunities on behalf of our shareholders. Our focus on investment excellence is accompanied by an unwavering commitment to service, enabling us to assist clients, in cooperation with their financial professionals, in working toward their investment goals. We thank you for allowing us the opportunity, and we look forward to serving your investment needs in the months and years ahead as the new BlackRock.

Sincerely,

/s/ Robert C. Doll, Jr.

Robert C. Doll, Jr. Vice Chairman BlackRock, Inc.

Data, including assets under management, are as of June 30, 2006.

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A Discussion With Your Fund's Portfolio Manager

Our commitment to providing shareholders with an attractive level of income continued to drive portfolio activity, allowing the Fund to maintain an above-average distribution rate throughout the fiscal year.

Describe the recent market environment relative to municipal bonds.

Long-term bond yields rose throughout most of the past year before declining in August as bond prices correspondingly improved. The shift in direction was largely a reaction to the Federal Reserve Board's (the Fed) decision on August 8 to refrain from raising the federal funds target rate. After 17 consecutive interest rate hikes since mid-2004, a moderation in economic growth and decline in inflationary expectations were cited as reasons for the Fed's pause. Earlier in the 12-month period, bond yields rose steadily (and their prices fell) as investors focused on solid economic growth in the United States and abroad.

Despite a decline in gross domestic product growth between the first and second quarters of 2006, U.S. economic activity so far this year has outpaced the 3.2% annual growth rate posted in 2005. Rising commodity prices also stoked inflationary fears, further weighing on bond prices.

Overall, 30-year U.S. Treasury bond yields rose 62 basis points (.62%) during the 12-month period to 4.88%, while 10-year U.S. Treasury note yields rose 72 basis points to 4.74%. The yield curve continued to flatten as short-term interest rates rose more than longer-term interest rates. Municipal bond yields also rose, although the tax-exempt market's strong technical position provided price support and allowed municipal bond prices to decline less than those of taxable bonds. As measured by Municipal Market Data, yields on AAA-rated municipal issues maturing in 30 years rose just four basis points to 4.26%, while yields on AAA-rated issues maturing in 10 years rose 28 basis points to 3.78%.

The rise in yields prompted a revival in investor demand for municipal bonds. The increased demand also was triggered by seasonal factors that served to generate large cash flows into investor accounts. Investors received more than \$40 billion in June and July from coupon income and the proceeds from bond maturities and early redemptions. Consequently, municipal bond fund flows continued to be supportive. As reported by the Investment Company Institute, open-end tax-exempt bond funds received net new cash inflows of over \$6.8 billion in the first seven months of 2006, compared to \$4.2 billion during the same period in 2005.

Also contributing to the outperformance of the municipal market has been declines in new issuance. During the past six months, more than \$195 billion in new long-term tax-exempt bonds was underwritten, a 10% decline compared to the same period a year earlier. Recent declines in issuance have largely been the result of a 56% drop in refunding activity so far this year. Rising bond yields have made the refinancing of existing higher-couponed debt issues increasingly problematic, as the potential economic savings have rapidly diminished. In addition, the improved fiscal condition of many state and local governments has resulted in lower borrowing trends, with many new municipal capital projects financed from existing budget surpluses. The declines in issuance have led many analysts to lower their annual issuance forecasts. Lower annual issuance would further solidify the tax-exempt market's already positive technical position.

Looking ahead, municipal market fundamentals are likely to remain favorable, leading us to expect the tax-exempt market to perform at least as well as comparable U.S. Treasury issues. Attractive yield ratios have continued to draw both retail and institutional investors to the municipal market. Based on this, and the prospect for reduced annual issuance in 2006, we believe the municipal market should continue to perform well in the coming months.

How did the Fund perform during the fiscal year?

For the 12-month period ended August 31, 2006, the Common Stock of MuniVest Fund, Inc. had net annualized yields of 5.92% and 6.09%, based on a year-end per share net asset value of \$9.93 and a per share market price of \$9.66, respectively, and \$.588 per share income dividends. Over the same period, the total investment return on the Fund's Common Stock was +3.27%, based on a change in per share net asset value from \$10.23 to \$9.93, and assuming reinvestment of all distributions.

The Fund's total return, based on net asset value, lagged the +4.13% average return of the Lipper General Municipal Debt Funds (Leveraged) category for the 12-month period. (Funds in this Lipper category invest primarily in municipal debt issues rated in the top four credit rating categories. These funds can be leveraged via use of debt, preferred equity and/or reverse repurchase agreements.) The Fund's underperformance resulted partly from our premature

positioning for an improving bond market. (This involved maintaining an

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interest rate sensitivity above that of our peers.) We expected the Fed to stop raising interest rates by mid-2006 and, coincident with such a pause, for bond price appreciation to ensue prior to August.

Perhaps more importantly, Fund performance was negatively impacted by our exposure to the intermediate sector of the tax-exempt yield curve, an area that lagged as the curve flattened. Over time, many of the Fund's holdings are prerefunded to shorter call dates, while other issues are priced to shorter and shorter call dates. This resulted in an increased exposure to intermediate maturities (10 years or less), which have been particularly sensitive to the increase in interest rates. Nevertheless, we chose to maintain the Fund's exposure to intermediate bonds given their relatively high acquisition yields. The sale of these bonds would result in both a material decline in the Fund's distribution yield and significant taxable capital gains. On the positive side, these credits allowed the Fund to maintain an above-average distribution yield.

For the six-month period ended August 31, 2006, the total investment return on the Fund's Common Stock was +2.36%, based on a change in per share net asset value from \$9.99 to \$9.93, and assuming reinvestment of all distributions.

For a description of the Fund's total investment return based on a change in the per share market value of the Fund's Common Stock (as measured by the trading price of the Fund's shares on the American Stock Exchange), and assuming reinvestment of dividends, please refer to the Financial Highlights section of this report. As a closed-end fund, the Fund's shares may trade in the secondary market at a premium or discount to the Fund's net asset value. As a result, total investment returns based on changes in the market value of the Fund's Common Stock can vary significantly from total investment returns based on changes in the Fund's net asset value.

What changes were made to the portfolio during the period?

Declines in new-issue volume and low nominal market yields served to limit portfolio activity during the past year. In general, new purchases have been focused on issues rated A or higher, particularly those in California and New York, where greater issuance has made it easier to obtain attractively priced bonds. We recently added some A-rated hospital bonds to the portfolio, which provide both a generous level of coupon income and liquidity.

The Fund's overall credit quality improved during the year. At period-end, 72.7% of the Fund was rated A or higher, compared to 70.7% on August 31, 2005. In addition, 95.3% of the portfolio was rated BBB or higher at period-end compared to 96% a year ago.

For the six-month period ended August 31, 2006, the Fund's Auction Market Preferred Stock (AMPS) had average yields as follows: Series A, 3.27%; Series B, 3.44%; Series C, 3.48%; Series D, 3.34%; Series E, 3.33%; and Series F, 3.42%. The Fed raised short-term interest rates seven times during the 12-month period, and this had an associated impact on the Fund's borrowing costs. Since the Fed opted not to raise interest rates in August, the Fund's borrowing costs have stabilized and moved slightly lower. Despite the interest rate increases during the period, the municipal yield curve remained positively sloped and continued to generate an income benefit to the Common Stock shareholder from the leveraging of Preferred Stock. However, should the spread between short-term and long-term interest rates narrow, the benefits of leverage will decline and, as a result, reduce the yield on the Fund's Common Stock. At period-end, the Fund's

leverage amount, due to AMPS, was 35.38% of total net assets. (For a more complete explanation of the benefits and risks of leveraging, see page 6 of this report to shareholders.)

How would you characterize the Fund's position at the close of the period?

We maintain a constructive view on the municipal market. The end of the Fed's two-year interest rate-hiking campaign, combined with modest economic growth and inflationary pressures, should promote a gradual improvement in tax-exempt bond prices. Should we see signs of accelerated economic activity and/or rising wage pressures, we would take steps to return to a more defensive positioning.

Overall, the Fund will remain fully invested in order to enhance the level of income provided to shareholders. Portfolio activity in the months ahead will likely be driven by our efforts to maintain an attractive yield.

Fred K. Stuebe Vice President and Portfolio Manager

September 12, 2006

BLACKROCK MUNIVEST FUND, INC.

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The Benefits and Risks of Leveraging

BlackRock MuniVest Fund, Inc. utilizes leveraging to seek to enhance the yield and net asset value of its Common Stock. However, these objectives cannot be achieved in all interest rate environments. To leverage, the Fund issues Preferred Stock, which pays dividends at prevailing short-term interest rates, and invests the proceeds in long-term municipal bonds. The interest earned on these investments, net of dividends to Preferred Stock, is paid to Common Stock shareholders in the form of dividends, and the value of these portfolio holdings is reflected in the per share net asset value of the Fund's Common Stock. However, in order to benefit Common Stock shareholders, the yield curve must be positively sloped; that is, short-term interest rates must be lower than long-term interest rates. At the same time, a period of generally declining interest rates will benefit Common Stock shareholders. If either of these conditions change, then the risks of leveraging will begin to outweigh the benefits.

To illustrate these concepts, assume a fund's Common Stock capitalization of \$100 million and the issuance of Preferred Stock for an additional \$50 million, creating a total value of \$150 million available for investment in long-term municipal bonds. If prevailing short-term interest rates are approximately 3% and long-term interest rates are approximately 6%, the yield curve has a strongly positive slope. The fund pays dividends on the \$50 million of Preferred Stock based on the lower short-term interest rates. At the same time, the fund's total portfolio of \$150 million earns the income based on long-term interest rates. Of course, increases in short-term interest rates would reduce (and even eliminate) the dividends on the Common Stock.

In this case, the dividends paid to Preferred Stock shareholders are significantly lower than the income earned on the fund's long-term investments, and therefore the Common Stock shareholders are the beneficiaries of the incremental yield. However, if short-term interest rates rise, narrowing the differential between short-term and long-term interest rates, the incremental yield pickup on the Common Stock will be reduced or eliminated completely. At the same time, the market value of the fund's Common Stock (that is, its price as listed on the American Stock Exchange) may, as a result, decline. Furthermore, if long-term interest rates rise, the Common Stock's net asset

value will reflect the full decline in the price of the portfolio's investments, since the value of the fund's Preferred Stock does not fluctuate. In addition to the decline in net asset value, the market value of the fund's Common Stock may also decline.

As a part of its investment strategy, the Fund may invest in certain securities whose potential income return is inversely related to changes in a floating interest rate ("inverse floaters"). In general, income on inverse floaters will decrease when short-term interest rates increase and increase when short-term interest rates decrease. Investments in inverse floaters may be characterized as derivative securities and may subject the Fund to the risks of reduced or eliminated interest payments and losses of invested principal. In addition, inverse floaters have the effect of providing investment leverage and, as a result, the market value of such securities will generally be more volatile than that of fixed rate, tax-exempt securities. To the extent the Fund invests in inverse floaters, the market value of the Fund's portfolio and the net asset value of the Fund's shares may also be more volatile than if the Fund did not invest in these securities. As of August 31, 2006, the percentage of the Fund's total net assets invested in inverse floaters was 12.08%, before the deduction of Preferred Stock.

Swap Agreements

The Fund may invest in swap agreements, which are over-the-counter contracts in which one party agrees to make periodic payments based on the change in market value of a specified bond, basket of bonds or index in return for periodic payments based on a fixed or variable interest rate or the change in market value of a different bond, basket of bonds or index. Swap agreements may be used to obtain or reduce exposure to a bond or market without owning or taking physical custody of securities. Swap agreements involve the risk that the party with whom the Fund has entered into the swap will default on its obligation to pay the Fund and the risk that the Fund will not be able to meet its obligations to pay the other party to the agreement.

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Schedule (٦f	Investments

(in Thousands)

Face Amount	Municipal Bonds		Value
Alabama2.8	3%		======
\$ 2,550	Camden, Alabama, IDB, Exempt Facilities Revenue		
	Bonds (Weyerhaeuser Company), Series A,		
	6.125% due 12/01/2024	\$	2,778
	Huntsville, Alabama, Health Care Authority		
	Revenue Bonds:		
3,500	Series A, 5.75% due 6/01/2031		3,727
5,000	Series B, 5.75% due 6/01/2032		5 , 374
5,000	Selma, Alabama, IDB, Environmental Improvement		
	Revenue Refunding Bonds (International Paper		
	Company Project), Series B, 5.50% due 5/01/2020		5 , 294
Alaska1.3%	÷		
7,405	Anchorage, Alaska, Lease Revenue Bonds (Correctional Facility), 6% due 2/01/2010 (a)(i)		7 , 972
======================================		====	

4,100 Maricopa County, Arizona, IDA, Education Revenue
Bonds (Arizona Charter Schools Project 1), Series A,

	6.75% due 7/01/2029	4,115
	Pima County, Arizona, IDA, Education Revenue Bonds	,
	(Arizona Charter Schools Project):	
2,100	Series E, 7.25% due 7/01/2031 Series I, 6.10% due 7/01/2024	2 , 263
500 1,000	Series I, 6.10% due 7/01/2024 Series I, 6.30% due 7/01/2031	1,035
1,565	Pima County, Arizona, IDA, Education Revenue	1,000
,	Refunding Bonds (Arizona Charter Schools	
	Project II), Series A, 6.75% due 7/01/2021	1,652
California-		=======
18,850	California Health Facilities Financing Authority	
	Revenue Bonds (Kaiser Permanente), Series A,	
	5.25% due 4/01/2039	19,819
1,360	California State, GO: 5.50% due 4/01/2014 (a)	1,524
12,210	5.50% due 4/01/2030	13,347
	California State Public Works Board, Lease	
	Revenue Bonds:	
5,000	(Department of Corrections), Series C, 5.50% due 6/01/2022	5,478
6,000	(Department of Corrections), Series C,	J,470
,,,,,,	5.50% due 6/01/2023	6,565
11,075	(Department of Mental HealthCoalinga State	
11 050	Hospital), Series A, 5.125% due 6/01/2029	11,530
11,250	California State, Various Purpose, GO, 5.50% due 11/01/2033	12,285
5,240	California Statewide Communities Development	12,200
,	Authority, Health Facility Revenue Bonds (Memorial	
	Health Services), Series A, 6% due 10/01/2023	5 , 797
1,250	Chula Vista, California, IDR (San Diego Gas and	1 204
	Electric Company), AMT, Series B, 5% due 12/01/2027 Golden State Tobacco Securitization Corporation of	1,294
	California, Tobacco Settlement Revenue Bonds:	
10,725	Series A-3, 7.875% due 6/01/2042	12,995
3,750	Series A-4, 7.80% due 6/01/2042	4,527
1,425 13,900	Series A-5, 7.875% due 6/01/2042 Series B, 5.375% due 6/01/2010 (a)	1,727 14,769
=======	======================================	=======
Colorado0		
	Colorado HFA, Revenue Refunding Bonds (S/F Program), AMT:	
695	(S/F Flogram), AMI. Senior Series A-2, 6.60% due 5/01/2028	715
250	Senior Series A-2, 7.50% due 4/01/2031	257
3,000	Colorado Health Facilities Authority Revenue Bonds	
	(Lutheran Medical Center), Series A, 5.25%	2 107
========	due 6/01/2034	3 , 107
Connecticut	0.5%	
2,810	Mohegan Tribe Indians Gaming Authority, Connecticut,	
	Public Improvement Revenue Refunding Bonds	2 001
	(Priority Distribution), 6.25% due 1/01/2031	2 , 991
Florida3.	9%	
	Highlands County, Florida, Health Facilities Authority,	
6,000	Hospital Revenue Bonds (Adventist Health System): Series C, 5.25% due 11/15/2036	6,314
6,000	Series D, 5.375% due 11/15/2035	6,286
10,320	Orange County, Florida, Health Facilities Authority,	-,
	Hospital Revenue Bonds (Adventist Health System),	
	5.625% due 11/15/2032	11,061

Georgia3.2	8	
	Georgia Municipal Electric Authority, Power Revenue	
	Refunding Bonds:	
4,600	Series W, 6.60% due 1/01/2018	5,380
250	Series W, 6.60% due 1/01/2018 (e)	291
250	Series Y,10% due 1/01/2010 (e)	299
	Milledgeville-Baldwin County, Georgia, Development	
	Authority Revenue Bonds (Georgia College and	
	State University Foundation):	
4,390	5.50% due 9/01/2024	4,670
3,500	5.625% due 9/01/2030	3,743
4,785	Monroe County, Georgia, Development Authority,	
	PCR, Refunding (Oglethorpe Power Corporation	
	Scherer), Series A, 6.80% due 1/01/2011	5,308
Idaho0.1%		
530	Idaho Housing Agency, S/F Mortgage Revenue Refunding Bonds, AMT, Series E-2, 6.90%	

Portfolio Abbreviations

To simplify the listings of BlackRock MuniVest Fund, Inc.'s portfolio holdings in the Schedule of Investments, we have abbreviated the names of many of the securities according to the list at right.

AMT	Alternative Minimum Tax (subject to)
DRIVERS	Derivative Inverse Tax-Exempt Receipts
EDA	Economic Development Authority
GO	General Obligation Bonds
HDA	Housing Development Authority
HFA	Housing Finance Agency
IDA	Industrial Development Authority
IDB	Industrial Development Board
IDR	Industrial Development Revenue Bonds
M/F	Multi-Family
PCR	Pollution Control Revenue Bonds
RIB	Residual Interest Bonds
S/F	Single-Family
VRDN	Variable Rate Demand Notes
HDA HFA IDA IDB IDR M/F PCR RIB S/F	Housing Development Authority Housing Finance Agency Industrial Development Authority Industrial Development Board Industrial Development Revenue Bonds Multi-Family Pollution Control Revenue Bonds Residual Interest Bonds Single-Family

due 1/01/2027

BLACKROCK MUNIVEST FUND, INC.

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Schedule of Investments (continued)

(in Thousands)

Face Amount	Municipal Bonds	Value
Illinois16	 .5%	 ======
\$ 5,000	Chicago, Illinois, O'Hare International Airport, General Airport Revenue Refunding Bonds, Third Lien, AMT, Series A, 5.75% due 1/01/2019 (c) Chicago, Illinois, O'Hare International Airport	\$ 5,369
	Revenue Bonds, AMT:	
8,540	DRIVERS, Series 368, 8.23%	
	due 7/01/2011 (c)(m)	10,542
11,200	Third Lien, Series B-2, 6% due $1/01/2029$ (n)	12,498
7,000	Chicago, Illinois, O'Hare International Airport, Revenue Refunding Bonds, DRIVERS, AMT,	

	Series 253, 7.736% due 1/01/2020 (c)(m)	8,033
80	Chicago, Illinois, S/F Mortgage Revenue Bonds, AMT, Series C, 7% due 3/01/2032 (d)(k)	82
10,000	Hodgkins, Illinois, Environmental Improvement	
	Revenue Bonds (Metro Biosolids Management, LLC	10 455
2,140	Project), AMT, 6% due 11/01/2023 Illinois Development Finance Authority Revenue	10,455
2,110	Bonds (Community Rehabilitation Providers	
	Facilities), Series A, 6.50% due 7/01/2022	2,326
1,365	Illinois Development Finance Authority, Revenue	
	Refunding Bonds (Community Rehabilitation Providers Facilities), Series A, 6% due 7/01/2015	1,394
455	Illinois HDA, Revenue Refunding Bonds (M/F Program),	1,331
	Series 5, 6.75% due 9/01/2023	461
5,245	Kane and De Kalb Counties, Illinois, Community Unit	
	School District Number 302, GO, DRIVERS, Series 283, 7.767% due 2/01/2018 (f)(m)	6,456
	McLean and Woodford Counties, Illinois, Community	0, 130
	Unit, School District Number 005, GO, Refunding (i):	
5,000	6.25% due 12/01/2014	5,593
4,000 18,550	6.375% due 12/01/2016 Metropolitan Pier and Exposition Authority, Illinois,	4,502
10,330	Dedicated State Tax Revenue Refunding Bonds	
	(McCormick Place Expansion Project), Series B,	
	5.75% due 6/15/2023 (c)	20,430
	Regional Transportation Authority, Illinois, Revenue Bonds:	
3,500	Series A, 7.20% due 11/01/2020 (h)	4,337
4,000	Series C, 7.75% due 6/01/2020 (f)	5,471
	Will County, Illinois, School District Number 122	
1 475	(New Lenox Elementary), GO, Series A (i):	1 626
1,475 505	6.50% due 11/01/2010 (a) 6.50% due 11/01/2013	1,636 557
395	6.50% due 11/01/2015	436
Indiana8.	======================================	=======
5,000	Delaware County, Indiana, Hospital Authority, Hospital	
	Revenue Bonds (Cardinal Health System Obligated	5 105
16,350	Group), 5.125% due 8/01/2029 Indiana Health and Educational Facilities Financing	5,107
10,330	Authority, Hospital Revenue Bonds (Clarian Health	
	Obligation), Series A, 5.25% due 2/15/2040	17,119
4,290	Indiana State HFA, S/F Mortgage Revenue Refunding	
0 105	Bonds, Series A, 6.80% due 1/01/2017 (j)	4,399
8 , 195	Indiana Transportation Finance Authority, Highway Revenue Bonds, Series A, 6.80% due 12/01/2016	9,729
15,335	Indianapolis, Indiana, Local Public Improvement Bond	, , , _ ,
	Bank Revenue Refunding Bonds, Series D, 6.75%	
	due 2/01/2014	17,561
Kansas0.6		
3,805	Sedgwick and Shawnee Counties, Kansas, S/F	
	Mortgage Revenue Bonds (Mortgage-Backed	
	Securities Program), AMT, Series A-4, 5.95%	2 000
	due 12/01/2033 (d)	3,898 ======
Louisiana		
10,575	Louisiana Local Government, Environmental Facilities,	
	Community Development Authority Revenue Bonds (Capital Projects and Equipment Acquisition),	
	Series A, 6.30% due 7/01/2030 (h)	12,065
	Louisiana Public Facilities Authority, Hospital	

6,220 11,660	Revenue Bonds (Franciscan Missionaries of Our Lady Health System, Inc.), Series A: 5% due 8/15/2033 5.25% due 8/15/2036	6,373 12,193
Maine0.3%	Portland, Maine, Housing Development Corporation, Senior Living Revenue Bonds (Avesta Housing Development Corporation Project), Series A:	
775 1 , 190	5.70% due 8/01/2021 6% due 2/01/2034	805 1,238
Massachuset		
2,035	Boston, Massachusetts, Water and Sewer Commission Revenue Bonds, 9.25% due 1/01/2011 (e)	2,431
3,010	Massachusetts Bay Transportation Authority Revenue Refunding Bonds (General Transportation System),	2 700
10,000	Series A, 7% due 3/01/2019 Massachusetts State School Building Authority, Dedicated Sales Tax Revenue Bonds, DRIVERS, 1052,	3,708
00.000	6.283% due 8/15/2013 (i) (m)	11,016
30,000 3,480	Massachusetts State Water Resource Authority Revenue Bonds, Series A, 6.50% due 7/15/2019 Massachusetts State Water Resource Authority,	35,590
	Revenue Refunding Bonds, Series A, 6% due 8/01/2010 (a)(f)	3,811
Michigan5	.6%	
7,695	Delta County, Michigan, Economic Development Corporation, Environmental Improvement Revenue Refunding Bonds (Mead Westvaco-Escanaba),	
	Series A, 6.25% due 4/15/2012 (a) Macomb County, Michigan, Hospital Finance Authority, Hospital Revenue Bonds (Mount Clemens General Hospital), Series B:	8,695
3,715	5.75% due 11/15/2025	3,870
4,250	5.875% due 11/15/2034	4,485
1,900	Michigan State Hospital Finance Authority, Hospital Revenue Refunding Bonds (Crittenton Hospital),	2 024
	Series A, 5.625% due 3/01/2027 Michigan State Hospital Finance Authority, Revenue Refunding Bonds:	2,024
3,000	(Henry Ford Health System), Series A, 5.25% due 11/15/2032	3,170
10,600 1,000	(Henry Ford Health System), Series A, 5% due 11/15/2038 (Sinai Hospital), 6.70% due 1/01/2026	10,889 1,016
=======	(ornar nospiear), 0.700 dae 1,01,2020	========
8 BLA	CKROCK MUNIVEST FUND, INC. AUGUST 3	1, 2006
Schedule of	Investments (continued)	(in Thousands)
Face Amount	Municipal Bonds	Value
Minnesota \$ 7,235	Minneapolis, Minnesota, Health Care System Revenue Bonds (Allina Health System), Series A, 5.75%	
	due 11/15/2032	\$ 7,761

1,405	Saint Cloud, Minnesota, Health Care Revenue	
	Refunding Bonds (Saint Cloud Hospital Obligation	
	Group), Series A, 6.25% due 5/01/2017 (i)	1,537
 Mississippi		
	Lowndes County, Mississippi, Solid Waste Disposal and	
	PCR, Refunding (Weyerhaeuser Company Project):	
9,160	Series A, 6.80% due 4/01/2022	10,987
4,500	Series B, 6.70% due 4/01/2022	5 , 351
20,705	Mississippi Business Finance Corporation, Mississippi,	
	PCR, Refunding (System Energy Resources Inc.	
	Project), 5.875% due 4/01/2022	20,737
Missouri0	0.5%	
2,600	Missouri State Development Finance Board,	
	Infrastructure Facilities Revenue Refunding Bonds	
	(Branson), Series A, 5.50% due 12/01/2032	2,704
240	Missouri State Housing Development Commission,	
	S/F Mortgage Revenue Bonds (Homeowner Loan),	
	AMT, Series A, 7.50% due 3/01/2031 (d)	251
======= Montana1.		=======
6,000	Forsyth, Montana, PCR, Refunding (Portland General	
	Electric Company), Series A, 5.20% due 5/01/2033	6,163
Nalana alaa 0	. 10	======
Nebraska0 415	Nebraska Investment Finance Authority, S/F Housing	
410	Revenue Bonds, AMT, Series C, 6.30%	
	due 9/01/2028 (d) (k)	419
	aue	417
Nevada0.8	8	
	Nevada Housing Division, Multi-Unit Housing	
	Revenue Bonds, AMT (b):	
3 , 475	(Arville Electric Project), 6.60% due 10/01/2023	3,548
1,200	Issue B, 7.45% due 10/01/2017	1,202
	Nevada Housing Division Revenue Bonds	
	(S/F Program), AMT (j):	
75	Senior Series E, 7% due 10/01/2019	75
20	Series A, 6.55% due 10/01/2012	20
New Hampshi	re0.7%	
1,275	New Hampshire Health and Education Facilities	
	Authority Hospital Revenue Bonds (Catholic Medical	
	Center), 5% due 7/01/2032	1,304
2,675	New Hampshire Health and Education Facilities	
	Authority, Revenue Refunding Bonds (Elliot Hospital),	
	Series B, 5.60% due 10/01/2022	2,868
New Jersey-		
	New Jersey EDA, Cigarette Tax Revenue Bonds:	
9,080	5.50% due 6/15/2024	9,514
2,885	5.75% due 6/15/2029	3,090
2,855	5.50% due 6/15/2031	2,993
6,695	5.75% due 6/15/2034	7,127
8,480	Tobacco Settlement Financing Corporation of	, ,
-,	New Jersey, Asset-Backed Revenue Bonds, 7%	
	due 6/01/2041	9,662
========	0.50	======
New Mexico- 3,300	-0.5% Farmington, New Mexico, PCR, Refunding (Public	
3,300	Service Company of New MexicoSan Juan	
	Project), Series A, 5.80% due 4/01/2022	3,325
		0,020

New York16	.6%	
400	Metropolitan Transportation Authority, New York,	
	Dedicated Tax Fund, Revenue Refunding Bonds,	
	VRDN, Series B, 3.33% due 11/01/2022 (i)(1)	400
10,000	Metropolitan Transportation Authority, New York,	
	Transportation Revenue Bonds, Series A,	
	5% due 11/15/2031	10,463
18,565	New York City, New York, City Municipal Financing	
	Authority, Water and Sewer Systems Revenue	
7 075	Bonds, Series B, 5% due 6/15/2036	19,397
7 , 875	New York City, New York, City Transitional Finance	
	Authority Revenue Bonds, RIB, Series 283,	0 400
	8.79% due 11/15/2015 (m)	9,483
7 150	New York City, New York, GO:	7 500
7,150	Series F, 5.25% due 1/15/2033	7,529
360	Series I, 6.25% due 4/15/2007 (a) (n)	370
20	Series I, 6.25% due 4/15/2017 (n)	21
4,800	Series 0, 5% due 6/01/2030	4,998
6,000	Sub-Series I-1, 5% due 4/01/2024	6,322
2,000	Sub-Series I-1, 5% due 4/01/2025	2,103
0.65	New York City, New York, GO, Refunding, Series A:	1 0.00
965	6.375% due 5/15/2014 (f)	1,063
3,350	5% due 8/01/2028	3,513
16,750	New York Liberty Development Corporation, Revenue	
	Bonds (Goldman Sachs Headquarters),	
	5.25% due 10/01/2035	18,911
	New York State Dormitory Authority, Revenue	
	Refunding Bonds:	
1,000	(Mount Sinai Health), Series A, 6.50%	
	due 7/01/2025	1,078
11,875	RIB, Series 305, 8.29% due 5/15/2015 (c)(m)	14,025
400	New York State Local Government Assistance	
	Corporation, Revenue Refunding Bonds, Sub-Lien,	
	VRDN, Series 4V, 3.40% due 4/01/2022 (i)(1)	400
1,200	Triborough Bridge and Tunnel Authority, New York,	
	General Purpose Revenue Refunding Bonds, VRDN,	1 000
	Series C, 3.34% due 1/01/2032 (h)(1)	1,200
North Caroli		1
4,105	Gaston County, North Carolina, Industrial Facilities Pollution Control Financing Authority, Revenue	and
	Bonds (National Gypsum Company Project), AMT, 5.75% due 8/01/2035	4,327
========	J.73% due 6/01/2033	4,327
Ohio0.2%		
1,000	Richland County, Ohio, Hospital Facilities Revenue	
	Refunding Bonds (MedCentral Health System),	
	5.25% due 11/15/2036	1,047
Oregon0.6%	Deather the Course Course Course Deather DID	
3 , 305	Portland, Oregon, Sewer System Revenue Bonds, RIB,	0.015
	Series 386, 7.77% due 8/01/2020 (f)(m)	3,817
_ _		_
BLAC	KROCK MUNIVEST FUND, INC. AUGUST 3	31, 2006
Cahadula -f	Investments (sentinues)	(in Thomas
penedute of	Investments (continued)	(in Thousands

Face

13

Amount	Amount Municipal Bonds		
Pennsylvani	a4.1%		
\$ 2,440	Pennsylvania State Higher Education Assistance		
	Agency Revenue Bonds, Capital Acquisition,		
	6.125% due 12/15/2010 (a)(c)	\$ 2,680	
6,250	Pennsylvania State Higher Educational Facilities		
	Authority Revenue Bonds (University of		
	Pennsylvania Medical Center Health System), Series A, 6% due 1/15/2031	6 907	
	Philadelphia, Pennsylvania, Authority for Industrial	6 , 807	
	Development, Senior Living Revenue Bonds:		
1,000	(Arbor House Inc. Project), Series E, 6.10%		
_,	due 7/01/2033	1,046	
1,355	(Rieder House Project), Series A, 6.10%	,	
•	due 7/01/2033	1,418	
9,280	Sayre, Pennsylvania, Health Care Facilities Authority,		
	Revenue Bonds (Guthrie Healthcare System),		
	Series B, 7.125% due 12/01/2031	11,038	
1,750	Sayre, Pennsylvania, Health Care Facilities Authority,		
	Revenue Refunding Bonds (Guthrie Healthcare		
	System), Series A, 6.25% due 12/01/2018	1,928	
	· 0 10	========	
South Carol			
1,000	Georgetown County, South Carolina, Environmental Improvement Revenue Refunding Bonds		
	(International Paper Company Project), AMT,		
	Series A, 5.55% due 12/01/2029	1,042	
3,500	Lexington County, South Carolina, Health Services	_,	
, , , , , ,	District Inc., Hospital Revenue Refunding and		
	Improvement Bonds, 5.50% due 11/01/2032	3,684	
2,450	Medical University Hospital Authority, South Carolina,		
	Hospital Facilities Revenue Refunding Bonds,		
	6.50% due 8/15/2012 (a)	2,819	
5,000	Richland County, South Carolina, Environmental		
	Improvement Revenue Refunding Bonds		
	(International Paper), AMT, 6.10% due 4/01/2023	5,419	
Tennessee			
2,000	McMinn County, Tennessee, IDB, Solid Waste Revenue		
2,000	Bonds (Recycling FacilityCalhoun Newsprint),		
	AMT, 7.40% due 12/01/2022	2,030	
6,500	Shelby County, Tennessee, Health, Educational and	•	
	Housing Facility Board, Hospital Revenue Refunding		
	Bonds (Methodist Healthcare), 6.50%		
	due 9/01/2012 (a)	7,484	
Texas17.6			
	Austin, Texas, Convention Center Revenue Bonds		
C 000	(Convention Enterprises Inc.), First Tier, Series A:	(202	
6,000 1,290	6.70% due 1/01/2028 6.70% due 1/01/2032	6,392 1,365	
3,055	Brazos River Authority, Texas, PCR, Refunding (Texas	1,303	
3,033	Utility Company), AMT, Series A, 7.70%		
	due 4/01/2033	3,567	
11,460	Brazos River, Texas, Harbor Navigation District,	-,	
,	Brazoria County Environmental Revenue Refunding		
	Bonds (Dow Chemical Company Project), AMT,		
	Series A-7, 6.625% due 5/15/2033	12,847	
3,000	Gregg County, Texas, Health Facilities Development		
	Corporation, Hospital Revenue Bonds (Good		
	Shepherd Medical Center Project), 6.875%		

	5 5	
	due 10/01/2020 (g)	3,344
10,250	Guadalupe-Blanco River Authority, Texas, Sewage	
	and Solid Waste Disposal Facility Revenue Bonds	
	(E. I. du Pont de Nemours and Company Project),	
	AMT, 6.40% due 4/01/2026	10,472
6,000	Gulf Coast, Texas, Waste Disposal Authority Revenue	
	Refunding Bonds (International Paper Company),	6 150
E E O O	AMT, Series A, 6.10% due 8/01/2024	6,458
5,500	Harris County-Houston Sports Authority, Texas, Revenue Refunding Bonds, Senior Lien, Series G,	
	5.75% due 11/15/2020 (c)	5,949
10,485	Harris County, Texas, Health Facilities Development	J , 949
10,100	Corporation, Revenue Refunding Bonds, DRIVERS,	
	Series 1018, 7.761% due 7/01/2010 (m)	14,419
1,795	Houston, Texas, Industrial Development Corporation	11,113
_,	Revenue Bonds (Air Cargo), AMT, 6.375%	
	due 1/01/2023	1,921
	Mansfield, Texas, Independent School District,	·
	GO, Refunding:	
1,875	6.625% due 2/15/2010 (a)	2,056
155	6.625% due 2/15/2015	170
9,355	Matagorda County, Texas, Navigation District	
	Number 1, Revenue Refunding Bonds (Centerpoint	
	Energy Project), 5.60% due 3/01/2027	9,834
5,225	Midway, Texas, Independent School District, GO,	
	Refunding, 6.125% due 8/15/2014	5,682
2,700	Port Corpus Christi, Texas, Revenue Refunding	
	Bonds (Celanese Project), Series A, 6.45%	0.011
F 000	due 11/01/2030	2,911
5,000	Red River Authority, Texas, PCR, Refunding	
	(Celanese Project), AMT, Series B, 6.70% due 11/01/2030	5 , 398
7,280	Sabine River Authority, Texas, PCR, Refunding (TXU	3,390
7,200	Electric Company Project/TXU Energy Company	
	LLC), Series C, 5.20% due 5/01/2028	7,472
6,250	San Antonio, Texas, Electric and Gas Revenue Bonds,	,, 1,2
,	RIB, Series 469x, 7.82% due 2/01/2014 (m)	7,111
========		========
Vermont0.2		
1,000	Vermont Educational and Health Buildings Financing	
	Agency, Developmental and Mental Health Revenue	
	Bonds (Howard Center for Human Services), Series A	
	6.375% due 6/15/2022	1,062
Virginia0		
1,425	Chesterfield County, Virginia, IDA, PCR (Virginia	
1,125	Electric and Power Company), Series A, 5.875%	
	due 6/01/2017	1,542
		-,
10 BLAG	CKROCK MUNIVEST FUND, INC. AUGUST 3	1, 2006
Schedule of	Investments (concluded)	(in Thousands)
Face		
Amount	Municipal Bonds	Value
=========		:========
Washington-	-8.1%	
	Energy Northwest, Washington, Electric Revenue	
	Refunding Bonds, DRIVERS (m):	

\$ 5,330	Series 248, 7.767% due 7/01/2018 (c)	\$	6 , 379			
3,510	· · · · · · · · · · · · · · · · · · ·					
7,350						
2,400	Seattle, Washington, Housing Authority Revenue Bonds (Replacement Housing Project), 6.125%					
	due 12/01/2032		2,455			
8,100	8,100 Washington State, GO, Trust Receipts, Class R,					
14,320	Series 6, 8.023% due 1/01/2014 (i)(m) 14,320 Washington State Public Power Supply System,					
11,020	Revenue Refunding Bonds (Nuclear Project					
	Number 1), Series B, 7.125% due 7/01/2016		17,782			
Wisconsin	2.4%					
4,015	Badger Tobacco Asset Securitization Corporation,					
	Wisconsin, Asset-Backed Revenue Bonds, 6.125%					
1,765	due 6/01/2027 Milwaukee, Wisconsin, Revenue Bonds (Air Cargo),		4,276			
1,700	AMT, 6.50% due 1/01/2025		1,900			
5,000	Wisconsin State Health and Educational Facilities					
	Authority, Mortgage Revenue Bonds (Hudson		F 006			
3,040	Memorial Hospital), 5.70% due 1/15/2029 (j) Wisconsin State Health and Educational Facilities		5 , 296			
2,020	Authority Revenue Bonds (SynergyHealth Inc.),					
	6% due 11/15/2032		3,297			
Puerto Rico						
3,300	Puerto Rico Commonwealth Infrastructure Financing					
	Authority, Special Tax Revenue Bonds, Series B,		2 260			
2,750	5% due 7/01/2041 Puerto Rico Commonwealth, Public Improvement,		3,360			
2,700	GO, Series A, 5.25% due 7/01/2026		2,930			
IIS Virgin	Islands1.5%					
8,000	Virgin Islands Government Refinery Facilities, Revenue					
	Refunding Bonds (Hovensa Coker Project), AMT,					
	6.50% due 7/01/2021		9,002			
	Total Municipal Bonds					
	(Cost\$864,721)152.0%		926,896			
Shares						
Held	Short-Term Securities					
422	Merrill Lynch Institutional Tax-Exempt Fund,					
	3.33% (o) (p)		422			
	Total Short-Term Securities					
	(Cost\$422)0.1%		422			
Total Inves	tments (Cost\$865,143*)152.1%		927,318			
Other Asset	s Less Liabilities2.7%		16,613			
Preferred S	tock, at Redemption Value(54.8%)	(334,319)			
Net Assets Applicable to Common Stock100.0%						
-			609,612			

^{*} The cost and unrealized appreciation (depreciation) of investments as of August 31, 2006, as computed for federal income tax purposes, were as

follows:

Aggregate cost		A 065 100
		. \$ 865 , 199
Gross unrealized appreciation Gross unrealized depreciation		
Net unrealized appreciation		. \$ 62,119 =======
Prerefunded. FNMA Collateralized.		
MBIA Insured.		
FNMA/GNMA Collateralized.		
Escrowed to maturity. FGIC Insured.		
Radian Insured.		
AMBAC Insured.		
FSA Insured.		
FHA Insured. FHLMC Collateralized.		
but has variable rate and demand security. The rate disclosed is the changes periodically based upon put the rate disclosed is that current periodically and inversely based XL Capital Insured. Investments in companies consider purposes of Section 2(a)(3) of the follows:	that currently in effect. The prevailing market rates. It is rate chapter in the prevailing market rate chapter to be an affiliate of the control of the con	is rate anges s. e Fund, for
Affiliate	Net Activity	Dividend Income
Merrill Lynch Institutional Tax-Exempt Fund	422	
		\$ 160
Forward interest rate swaps outst	anding as of August 31, 200	6 were as
Represents the current yield as of Forward interest rate swaps outst follows:	Anding as of August 31, 200 Notional Amount cceive	6 were as Unrealized
Forward interest rate swaps outst follows:	Anding as of August 31, 200 Notional Amount cceive	6 were as Unrealized Depreciation
Forward interest rate swaps outst follows:	Notional Amount eceive eek Bond \$25,000	6 were as Unrealized Depreciation
Forward interest rate swaps outst follows: Pay a fixed rate of 3.881% and re a floating rate based on a 1-we Market Association rate Broker, JPMorgan Chase Bank Expires November 2016 Pay a fixed rate of 4.325% and re a floating rate based on a 1-we	Notional Amount eceive eek Bond \$25,000	6 were as Unrealized

Total

\$(815) See Notes to Financial Statements. BLACKROCK MUNIVEST FUND, INC. AUGUST 31, 2006 Statement of Net Assets As of August 31, 2006 _____ Investments in unaffiliated securities, at value (identified cost--\$864,721,252) ... Investments in affiliated securities, at value (identified cost--\$422,230) Cash Receivables: Securities sold Interest Prepaid expenses Total assets Unrealized depreciation on forward interest rate swaps Payables: Securities purchased Dividends to Common Stock shareholders Investment adviser Other affiliates Accrued expenses Total liabilities Preferred Stock Preferred Stock, at redemption value, par value \$.025 per share; 10,000,000 shares authorized (2,000 Series A Shares, 2,000 Series B Shares, 2,000 Series C Shares, 2,000 Series D Shares, 3,000 Series E Shares and 2,360 Series F Shares of AMPS* authorized, issued and outstanding at \$25,000 per share liquidation preference) ______ Net Assets Applicable to Common Stock Net assets applicable to Common Stock ______ Analysis of Net Assets Applicable to Common Stock Common Stock, par value \$.10 per share; 150,000,000 shares authorized (61,417,932 shares issued and outstanding) Paid-in capital in excess of par

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	Undistributed investment incomenet
	Total accumulated earningsnet
	TotalEquivalent to \$9.93 net asset value per share of Common Stock (market price\$9.66)
*	Auction Market Preferred Stock.
	See Notes to Financial Statements.
12	BLACKROCK MUNIVEST FUND, INC. AUGUST 31, 2006
Stat	tement of Operations
	the Year Ended August 31, 2006
Inve	estment Income
	Interest Dividends from affiliates Total income
	enses
	Investment advisory fees Commission fees Accounting services Transfer agent fees Professional fees Custodian fees Printing and shareholder reports Directors' fees and expenses Pricing fees Listing fees Other Total expenses before reimbursement Reimbursement of expenses Total expenses after reimbursement Investment incomenet
==== Real	
	Realized gain (loss) on: Investmentsnet

Change in unrealized appreciation/depreciation on:

19

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	Investmentsnet
	al realized and unrealized lossnet
=======================================	
Dividends to Pre	eferred Stock Shareholders
Inve	estment incomenet
Net	Increase in Net Assets Resulting from Operations
See Notes	to Financial Statements.
BLACKROC	CK MUNIVEST FUND, INC. AUGUST 31, 2006 13
Statements of Ch	nanges in Net Assets
Increase (Decrea	ase) in Net Assets:
Operations	
Real Char	estment incomenet
Net	increase in net assets resulting from operations
	mon Stock Shareholders
Inve	estment incomenet
	decrease in net assets resulting from dividends to Common Stock shareholders
Capital Stock Tr	ransactions
	ue of shares issued to Common Stock shareholders in reinvestment of dividends ering costs resulting from issuance of Preferred Stock
	increase (decrease) in net assets resulting from capital stock transactions \dots
	icable to Common Stock
	al increase (decrease) in net assets applicable to Common Stock

* Undistributed investment income--net

See Notes to Financial Statements.

14 BLACKROCK MUNIVEST FUND, INC. AUGUST 31, 2006

Financial Highlights

The following per share data and ratios have been derived				For the Y
rom information provided in the financial statements.	=	2006		2005
Per Share Operating Performance				
Net asset value, beginning of year	\$	10.23	\$	9.91
Investment incomenet		.70+ (.23)		.74+ .35
investment incomenet		(.17)		(.10)
Total from investment operations		.30		.99
Less dividends to Common Stock shareholders from investment incomenet		(.60)		(.67)
Offering costs resulting from the issuance of Preferred Stock				++
Net asset value, end of year	\$	9.93	- \$ 	10.23
Market price per share, end of year	===			10.15
otal Investment Return++				
Based on net asset value per share		3.27%		
Based on market price per share		1.26%		
atios Based on Average Net Assets of Common Stock	:===:		====	:=======
Expenses, net of reimbursement*		1.04%		1.02%
Total expenses*		1.04%		1.02%
Total investment incomenet*				7.38%
Amount of dividends to Preferred Stock shareholders		1.72%		1.02%
Investment incomenet, to Common Stock shareholders		5.39%		6.36%
atios Based on Average Net Assets of Preferred Stock		======		

Dividends to Preferred Stock shareholders	3.13%	1	.90% ======
Supplemental Data			
Net assets applicable to Common Stock, end of year (in thousands)		\$627,	562
Preferred Stock outstanding, end of year (in thousands)	\$334,000		000
Portfolio turnover			
Leverage			
Asset coverage per \$1,000			
Dividends Per Share on Preferred Stock Outstanding			
Series AInvestment incomenet		\$	477
Series BInvestment incomenet	\$ 822	\$	458
Series CInvestment incomenet	\$ 803	\$	485
Series DInvestment incomenet	\$ 773		478
Series EInvestment incomenet	\$ 770	\$	464
Series F**Investment incomenet		\$	485

- Do not reflect the effect of dividends to Preferred Stock shareholders.
- ** Series F was issued on August 31, 2004.
- Based on average shares outstanding.
- Total investment returns based on market value, which can be significantly greater or lesser than the net asset value, may result in substantially different returns. Total investment returns exclude the effects of sales
- +++ Amount is less than \$(.01) per share.

See Notes to Financial Statements.

BLACKROCK MUNIVEST FUND, INC.

AUGUST 31, 2006 15

Notes to Financial Statements

1. Significant Accounting Policies:

On September 29, 2006, MuniVest Fund, Inc. was renamed BlackRock MuniVest Fund, Inc. (the "Fund"). The Fund is registered under the Investment Company Act of 1940, as amended, as a non-diversified, closed-end management investment company. The Fund's financial statements are prepared in conformity with U.S. generally accepted accounting principles, which may require the use of management accruals and estimates. Actual results may differ from these estimates. The Fund determines and makes available for publication the net asset value of its Common Stock on a daily basis. The Fund's Common Stock shares are listed on the American Stock Exchange under the symbol MVF. The following is a

summary of significant accounting policies followed by the Fund.

- (a) Valuation of investments -- Municipal bonds are traded primarily in the over-the-counter ("OTC") markets and are valued at the last available bid price in the OTC market or on the basis of values as obtained by a pricing service. Pricing services use valuation matrixes that incorporate both dealer-supplied valuations and valuation models. The procedures of the pricing service and its valuations are reviewed by the officers of the Fund under the general direction of the Board of Directors. Such valuations and procedures are reviewed periodically by the Board of Directors of the Fund. Financial futures contracts and options thereon, which are traded on exchanges, are valued at their closing prices as of the close of such exchanges. Options written or purchased are valued at the last sale price in the case of exchange-traded options. In the case of options traded in the OTC market, valuation is the last asked price (options written) or the last bid price (options purchased). Swap agreements are valued by quoted fair values received daily by the Fund's pricing service. Short-term investments with a remaining maturity of 60 days or less are valued at amortized cost, which approximates market value, under which method the investment is valued at cost and any premium or discount is amortized on a straight line basis to maturity. Investments in open-end investment companies are valued at their net asset value each business day. Securities and other assets for which market quotations are not readily available are valued at fair value as determined in good faith by or under the direction of the Board of Directors of the Fund.
- (b) Derivative financial instruments -- The Fund may engage in various portfolio investment strategies both to increase the return of the Fund and to hedge, or protect, its exposure to interest rate movements and movements in the securities markets. Losses may arise due to changes in the value of the contract or if the counterparty does not perform under the contract.
- Financial futures contracts -- The Fund may purchase or sell financial futures contracts and options on such financial futures contracts. Financial futures contracts are contracts for delayed delivery of securities at a specific future date and at a specific price or yield. Upon entering into a contract, the Fund deposits and maintains as collateral such initial margin as required by the exchange on which the transaction is effected. Pursuant to the contract, the Fund agrees to receive from or pay to the broker an amount of cash equal to the daily fluctuation in value of the contract. Such receipts or payments are known as variation margin and are recorded by the Fund as unrealized gains or losses. When the contract is closed, the Fund records a realized gain or loss equal to the difference between the value of the contract at the time it was opened and the value at the time it was closed.
- Options -- The Fund may purchase and write call and put options. When the Fund writes an option, an amount equal to the premium received by the Fund is reflected as an asset and an equivalent liability. The amount of the liability is subsequently marked-to-market to reflect the current market value of the option written. When a security is purchased or sold through an exercise of an option, the related premium paid (or received) is added to (or deducted from) the basis of the security acquired or deducted from (or added to) the proceeds of the security sold. When an option expires (or the Fund enters into a closing transaction), the Fund realizes a gain or loss on the option to the extent of the premiums received or paid (or gain or loss to the extent the cost of the closing transaction exceeds the premium paid or received).

Written and purchased options are non-income producing investments.

o Forward interest rate swaps -- The Fund may enter into forward interest rate swaps. In a forward interest rate swap, the Fund and the counterparty

agree to make periodic net payments on a specified notional contract amount, commencing on a specified future effective date, unless terminated earlier. When the agreement is closed, the Fund records a realized gain or loss in an amount equal to the value of the agreement.

16 BLACKROCK MUNIVEST FUND, INC.

AUGUST 31, 2006

Notes to Financial Statements (continued)

- Swaps -- The Fund may enter into swap agreements, which are OTC contracts in which the Fund and a counterparty agree to make periodic net payments on a specified notional amount. The net payments can be made for a set period of time or may be triggered by a predetermined credit event. The net periodic payments may be based on a fixed or variable interest rate; the change in market value of a specified security, basket of securities, or index; or the return generated by a security. These periodic payments received or made by the Fund are recorded in the accompanying Statement of Operations as realized gains or losses, respectively. Gains or losses are also realized upon termination of the swap agreements. Swaps are marked-to-market daily and changes in value are recorded as unrealized appreciation (depreciation). Risks include changes in the returns of the underlying instruments, failure of the counterparties to perform under the contracts' terms and the possible lack of liquidity with respect to the swap agreements.
- (c) Income taxes -- It is the Fund's policy to comply with the requirements of the Internal Revenue Code applicable to regulated investment companies and to distribute substantially all of its taxable income to its shareholders. Therefore, no federal income tax provision is required.
- (d) Recent accounting pronouncement -- In July 2006, the Financial Accounting Standards Board ("FASB") issued Interpretation No. 48 ("FIN 48") entitled "Accounting for Uncertainty in Income Taxes -- an interpretation of FASB Statement No. 109." FIN 48 prescribes the minimum recognition threshold a tax position must meet in connection with accounting for uncertainties in income tax positions taken or expected to be taken by an entity including mutual funds before being measured and recognized in the financial statements. Adoption of FIN 48 is required for fiscal years beginning after December 15, 2006. The impact on the Fund's financial statements, if any, is currently being assessed.
- (e) Security transactions and investment income -- Security transactions are recorded on the dates the transactions are entered into (the trade dates). Realized gains and losses on security transactions are determined on the identified cost basis. Dividend income is recorded on the ex-dividend dates. Interest income is recognized on the accrual basis. The Fund amortizes all premiums and discounts on debt securities.
- (f) Dividends and distributions -- Dividends from net investment income are declared and paid monthly. Distributions of capital gains are recorded on the ex-dividend dates.
- (g) Offering costs -- Direct expenses relating to the public offering of the Fund's Preferred Stock were charged to capital.
- (h) Reclassifications -- U.S. generally accepted accounting principles require that certain components of net assets be adjusted to reflect permanent differences between financial and tax reporting. There were no significant reclassifications in the current year. These reclassifications have no effect on net assets or net asset values per share.

2. Investment Advisory Agreement and Transactions with Affiliates:

The Fund has entered into an Investment Advisory Agreement with Fund Asset Management, L.P. ("FAM"). The general partner of FAM is Princeton Services, Inc. ("PSI"), an indirect, wholly-owned subsidiary of Merrill Lynch & Co., Inc. ("ML & Co."), which is the limited partner.

FAM is responsible for the management of the Fund's portfolio and provides the necessary personnel, facilities, equipment and certain other services necessary to the operations of the Fund. For such services, the Fund pays a monthly fee at an annual rate of .50% of the Fund's average daily net assets, including assets acquired from the sale of Preferred Stock. The Investment Adviser has agreed to reimburse its management fee by the amount of management fees the Fund pays to FAM indirectly through its investment in the Merrill Lynch Institutional Tax-Exempt Fund. For the year ended August 31, 2006, FAM reimbursed the Fund in the amount of \$9,280.

In addition, Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") received \$2,750 in commissions on the execution of portfolio security transactions for the Fund for the year ended August 31, 2006.

BLACKROCK MUNIVEST FUND, INC.

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Notes to Financial Statements (concluded)

For the year ended August 31, 2006, the Fund reimbursed FAM \$22,121 for certain accounting services.

In February 2006, ML & Co. and BlackRock, Inc. entered into an agreement to contribute ML & Co.'s investment management business, including FAM, to the investment management business of BlackRock, Inc. The transaction will close on September 29, 2006.

On August 15, 2006, shareholders of the Fund approved a new Investment Advisory Agreement with BlackRock Advisors, Inc. (the "Manager"), a wholly-owned subsidiary of BlackRock, Inc. BlackRock, Inc. was reorganized into BlackRock Advisors, LLC. The new advisory agreement will become effective on September 29, 2006 and the investment advisory fee is unchanged. In addition, the Manager has entered into a sub-advisory agreement with BlackRock Financial Management, LLC, an affiliate, under which the Manager pays the Sub-Adviser for services it provides a fee equal to 59% of the management fee paid to the Manager.

During the year ended August 31, 2006, certain officers and/or directors of the Fund are officers and/or directors of FAM, PSI, and/or ML & Co.

3. Investments:

Purchases and sales of investments, excluding short-term securities, for the year ended August 31, 2006 were \$582,179,818 and \$581,797,207, respectively.

4. Capital Stock Transactions:

Common Stock

At August 31, 2006, the Fund had one class of shares of Common Stock, par value \$.10 per share, of which 150,000,000 shares were authorized.

Shares issued and outstanding for the year ended August 31, 2006 increased by 71,644 as a result of dividend reinvestment. Shares issued and outstanding for the year ended August 31, 2005 remained constant.

Preferred Stock

Auction Market Preferred Stock are redeemable shares of Preferred Stock of the Fund with a par value of \$.025 per share and a liquidation preference of \$25,000 per share plus accrued and unpaid dividends, that entitle their holders to receive cash dividends at an annual rate that may vary for the successive dividend periods for each series. The Fund is authorized to issue 10,000,000 shares of Preferred Stock. The yields in effect at August 31, 2006 were as follows: Series A, 3.45%; Series B, 3.55%; Series C, 3.45%; Series D, 3.60%; Series E, 3.40%; and Series F, 3.45%.

The Fund pays commissions to certain broker-dealers at the end of each auction at an annual rate ranging from .25% to .375% calculated on the proceeds of each auction. For the year ended August 31, 2006, MLPF&S received \$394,019 as commissions.

5. Distributions to Shareholders:

The Fund paid a tax-exempt income dividend to holders of Common Stock in the amount of .045000 per share on September 28, 2006 to shareholders of record on September 15, 2006.

The tax character of distributions paid during the fiscal years ended August 31, 2006 and August 31, 2005 was as follows:

	8/31/2006	8/31/2005
Distributions paid from: Tax-exempt income	\$47,230,435	\$47,558,681
Total distributions	\$47,230,435	\$47,558,681

As of August 31, 2006, the components of accumulated earnings on a tax basis were as follows:

Undistributed tax-exempt income net	\$ 4,506,661
Total undistributed earnings net	4,506,661 (15,459,706)* 49,266,367**
Total accumulated earnings net	\$ 38,313,322 =========

- * On August 31, 2006, the Fund had a net capital loss carryforward of \$15,459,706, all of which expires in 2009. This amount will be available to offset like amounts of any future taxable gains.
- ** The difference between book-basis and tax-basis net unrealized gains is attributable primarily to the tax deferral of losses on wash sales and the tax deferral of losses on straddles.
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AUGUST 31, 2006

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of BlackRock MuniVest Fund, Inc.:

We have audited the accompanying statement of net assets, including the schedule of investments, of BlackRock MuniVest Fund, Inc. (formerly MuniVest Fund, Inc.) as of August 31, 2006, and the related statement of operations for the year then ended, the statements of changes in net assets for each of the two years in the period then ended, and the financial highlights for each of the five years in the period then ended. These financial statements and financial highlights are the responsibility of the Fund's management. Our responsibility is to express an opinion on these financial statements and financial highlights based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements and financial highlights are free of material misstatement. The Fund is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Fund's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. Our procedures included confirmation of securities owned as of August 31, 2006, by correspondence with the custodian and brokers; where replies were not received from brokers, we performed other auditing procedures. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements and financial highlights referred to above present fairly, in all material respects, the financial position of BlackRock MuniVest Fund, Inc. as of August 31, 2006, the results of its operations for the year then ended, the changes in its net assets for each of the two years in the period then ended, and its financial highlights for each of the five years in the period then ended, in conformity with U.S. generally accepted accounting principles.

Deloitte & Touche LLP Princeton, New Jersey October 20, 2006

Important Tax Information (unaudited)

All of the net investment income distributions paid by BlackRock MuniVest Fund, Inc. during the taxable year ended August 31, 2006 qualify as tax-exempt interest dividends for federal income tax purposes.

BLACKROCK MUNIVEST FUND, INC.

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Disclosure of New Investment Advisory Agreement

New BlackRock Investment Advisory Agreement -- Matters Considered by the Board

In connection with the combination of Merrill Lynch's investment advisory business, including Fund Asset Management, L.P. (the "Previous Investment Adviser"), with that of BlackRock, Inc. ("BlackRock") to create a new independent company ("New BlackRock") (the "Transaction"), the Fund's Board of Directors considered and approved a new investment advisory agreement (the

"BlackRock Investment Advisory Agreement") between the Fund and BlackRock Advisors, LLC ("BlackRock Advisors"). The Fund's shareholders subsequently approved the BlackRock Investment Advisory Agreement and it became effective on September 29, 2006, replacing the investment advisory agreement with the Previous Investment Advisory Agreement").

The Board discussed the BlackRock Investment Advisory Agreement at telephonic and in-person meetings held during April and May 2006. The Board, including the independent directors, approved the BlackRock Investment Advisory Agreement at an in-person meeting held on May 12, 2006.

To assist the Board in its consideration of the BlackRock Investment Advisory Agreement, BlackRock provided materials and information about BlackRock, including its financial condition and asset management capabilities and organization, and Merrill Lynch provided materials and information about the Transaction. The independent directors, through their independent legal counsel, also requested and received additional information from Merrill Lynch and BlackRock in connection with their consideration of the BlackRock Investment Advisory Agreement. The additional information was provided in advance of the May 12, 2006 meeting. In addition, the independent directors consulted with their counsel and Fund counsel on numerous occasions, discussing, among other things, the legal standards and certain other considerations relevant to the directors' deliberations.

At the Board meetings, the directors discussed with Merrill Lynch management and certain BlackRock representatives the Transaction, its strategic rationale and BlackRock's general plans and intentions regarding the Fund. At these Board meetings, representatives of Merrill Lynch and BlackRock made presentations to and responded to questions from the Board. The directors also inquired about the plans for and anticipated roles and responsibilities of certain employees and officers of the Previous Investment Adviser, and of its affiliates, to be transferred to BlackRock in connection with the Transaction. The independent directors of the Board also conferred separately and with their counsel about the Transaction and other matters related to the Transaction on a number of occasions, including in connection with the April and May 2006 meetings. After the presentations and after reviewing the written materials provided, the independent directors met in executive sessions with their counsel to consider the BlackRock Investment Advisory Agreement.

In connection with the Board's review of the BlackRock Investment Advisory Agreement, Merrill Lynch and/or BlackRock advised the directors about a variety of matters. The advice included the following, among other matters:

- o that there was not expected to be any diminution in the nature, quality and extent of services provided to the Fund and its shareholders by BlackRock Advisors, including compliance services;
- o that operation of New BlackRock as an independent investment management firm would enhance its ability to attract and retain talented professionals;
- o that the Fund was expected to benefit from having access to BlackRock's state of the art technology and risk management analytic tools, including investment tools, provided under the BlackRock Solutions(R) brand name;
- o that BlackRock had no present intention to alter any applicable expense waivers or reimbursements that were currently in effect and, while it reserved the right to do so in the future, it would seek the approval of the Board before making any changes;
- o that in connection with the Transaction, Merrill Lynch and BlackRock had agreed to conduct, and use reasonable best efforts to cause their

respective affiliates to conduct, their respective businesses in compliance with the conditions of Section 15(f) of the Investment Company Act of 1940 (the "1940 Act") in relation to any public funds advised by BlackRock or the Previous Investment Adviser (or affiliates), respectively; and

- o that Merrill Lynch and BlackRock would derive benefits from the Transaction and that, as a result, they had a financial interest in the matters being considered that was different from that of Fund shareholders.
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AUGUST 31, 2006

The directors considered the information provided by Merrill Lynch and BlackRock above, and, among other factors, the following:

- o the potential benefits to Fund shareholders from being part of a combined fund family with BlackRock-sponsored funds, including possible economies of scale and access to investment opportunities;
- o the reputation, financial strength and resources of BlackRock and its investment advisory subsidiaries and the anticipated financial strength and resources of New BlackRock;
- o the compliance policies and procedures of BlackRock Advisors;
- o the terms and conditions of the BlackRock Investment Advisory Agreement, including the fact that the schedule of the Fund's total advisory fees would not increase under the BlackRock Investment Advisory Agreement, but would remain the same;
- that in February 2006, the Board had performed a full annual review of the Previous Investment Advisory Agreement, as required by the 1940 Act, and had determined that the Previous Investment Adviser had the capabilities, resources and personnel necessary to provide the advisory and administrative services that were then being provided to the Fund; and that the advisory and/or management fees paid by the Fund, taking into account any applicable agreed-upon fee waivers and breakpoints, had represented reasonable compensation to the Previous Investment Adviser in light of the services provided, the costs to the Previous Investment Adviser of providing those services, economies of scale, the fees and other expenses paid by similar funds (including information provided by Lipper Inc. ("Lipper")), and such other matters as the directors had considered relevant in the exercise of their reasonable judgment; and
- that Merrill Lynch had agreed to pay all expenses of the Fund in connection with the Board's consideration of the BlackRock Investment Advisory Agreement and related agreements and all costs of shareholder approval of the BlackRock Investment Advisory Agreement and as a result the Fund would bear no costs in obtaining shareholder approval of the BlackRock Investment Advisory Agreement.

Certain of these considerations are discussed in more detail below.

In its review of the BlackRock Investment Advisory Agreement, the Board assessed the nature, quality and scope of the services to be provided to the Fund by the personnel of BlackRock Advisors and its affiliates, including administrative services, shareholder services, oversight of fund accounting and assistance in meeting legal and regulatory requirements. In its review of the BlackRock Investment Advisory Agreement, the Board also considered a range of information

in connection with its oversight of the services to be provided by BlackRock Advisors and its affiliates. Among the matters considered were: (a) fees (in addition to management fees) to be paid to BlackRock Advisors and its affiliates by the Fund; (b) Fund operating expenses paid to third parties; (c) the resources devoted to and compliance reports relating to the Fund's investment objective, policies and restrictions, and its compliance with its Code of Ethics and BlackRock Advisors' compliance policies and procedures; and (d) the nature, cost and character of non-investment management services to be provided by BlackRock Advisors and its affiliates.

In the period prior to the Board meeting to consider renewal of the Previous Investment Advisory Agreement, the Board had requested and received materials specifically relating to the Previous Investment Advisory Agreement. These materials included (a) information compiled by Lipper on the fees and expenses and the investment performance of the Fund as compared to a comparable group of funds as classified by Lipper; (b) information comparing the Fund's market price with its net asset value per share; (c) a discussion by the Fund's portfolio management team on investment strategies used by the Fund during its most recent fiscal year; (d) information on the profitability to the Previous Investment Adviser of the Previous Investment Advisory Agreement and other payments received by the Previous Investment Adviser and its affiliates from the Fund; and (e) information provided by the Previous Investment Adviser concerning services related to the valuation and pricing of Fund portfolio holdings, the Fund's portfolio turnover statistics, and direct and indirect benefits to the Previous Investment Adviser and its affiliates from their relationship with the Fund.

BLACKROCK MUNIVEST FUND, INC.

AUGUST 31, 2006 21

Disclosure of New Investment Advisory Agreement (continued)

In their deliberations, the directors considered information received in connection with their most recent approval of the continuance of the Previous Investment Advisory Agreement, in addition to information provided by BlackRock and BlackRock Advisors in connection with their evaluation of the terms and conditions of the BlackRock Investment Advisory Agreement. The directors did not identify any particular information that was all-important or controlling, and each director attributed different weights to the various factors. The directors, including a majority of the independent directors, concluded that the terms of the BlackRock Investment Advisory Agreement are appropriate, that the fees to be paid are reasonable in light of the services to be provided to the Fund, and that the BlackRock Investment Advisory Agreement should be approved and recommended to Fund shareholders.

Nature, Quality and Extent of Services Provided -- The Board reviewed the nature, quality and scope of services provided by the Previous Investment Adviser, including the investment advisory services and the resulting performance of the Fund, as well as the nature, quality and extent of services expected to be provided by BlackRock Advisors. The Board focused primarily on the Previous Investment Adviser's investment advisory services and the Fund's investment performance, but also considered certain areas in which both the Previous Investment Adviser and the Fund received services as part of the Merrill Lynch complex. The Board compared the Fund's performance -- both including and excluding the effects of fees and expenses -- to the performance of a comparable group of funds, and the performance of a relevant index or combination of indexes. While the Board reviews performance data at least quarterly, consistent with the Previous Investment Adviser's investment goals, the Board attaches more importance to performance over relatively long periods of time, typically three to five years.

In evaluating the nature, quality and extent of the services to be provided by BlackRock Advisors under the BlackRock Investment Advisory Agreement, the directors considered, among other things, the expected impact of the Transaction on the operations, facilities, organization and personnel of New BlackRock and how it would affect the Fund; the ability of BlackRock Advisors to perform its duties after the Transaction; and any anticipated changes to the current investment and other practices of the Fund.

The directors were given information with respect to the potential benefits to the Fund and its shareholders from having access to BlackRock's state of the art technology and risk management analytic tools, including the investment tools provided under the BlackRock Solutions brand name.

The directors were advised that, as a result of Merrill Lynch's equity interest in BlackRock after the Transaction, the Fund would continue to be subject to restrictions concerning certain transactions involving Merrill Lynch affiliates (for example, transactions with a Merrill Lynch broker-dealer acting as principal) absent revised or new regulatory relief. The directors were advised that a revision of existing regulatory relief with respect to these restrictions was being sought from the Securities and Exchange Commission and were advised of the possibility of receipt of such revised regulatory relief.

Based on their review of the materials provided and the assurances they had received from the management of Merrill Lynch and of BlackRock, the directors determined that the nature and quality of services to be provided to the Fund under the BlackRock Investment Advisory Agreement were expected to be as good as or better than that provided under the Previous Investment Advisory Agreement. The directors were advised that BlackRock Advisors did not plan to change the Fund's portfolio management team upon the closing of the transaction. It was noted, however, that other changes in personnel were expected to follow the Transaction and the combination of the operations of the Previous Investment Adviser and its affiliates with those of BlackRock. The directors noted that if current portfolio managers or other personnel were to cease to be available prior to the closing of the Transaction, the Board would consider all available options, including seeking the investment advisory or other services of BlackRock affiliates. Accordingly, the directors concluded that, overall, they were satisfied at the present time with assurances from BlackRock and BlackRock Advisors as to the expected nature, quality and extent of the services to be provided to the Fund under the BlackRock Investment Advisory Agreement.

Costs of Services Provided and Profitability -- It was noted that, in conjunction with the recent review of the Previous Investment Advisory Agreement, the directors had received, among other things, a report from Lipper comparing the Fund's fees and expenses to those of a peer group selected by Lipper, and information as to the fees charged by the Previous Investment Adviser or its affiliates to other registered investment company clients for investment management services. The Board reviewed the Fund's contractual management fee rate and actual management fee rate as a percentage of total assets at common asset levels -- the actual rate includes advisory fees and the effects of any fee

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AUGUST 31, 2006

waivers -- compared to the other funds in its Lipper category. They also compared the Fund's total expenses to those of other comparable funds. The information showed that the Fund had fees and expenses within the range of fees and expenses of comparable funds. The Board considered the services to be provided by and the fees to investment mandates and noted that the fees charged by BlackRock Advisors in those cases, including fee waivers and expense reimbursements, were generally comparable to those being charged to the Fund.

The Board concluded that the Fund's management fee and fee rate and overall expense ratio are reasonable compared to those of other comparable funds.

In evaluating the costs of the services to be provided by BlackRock Advisors under the BlackRock Investment Advisory Agreement, the directors considered, among other things, whether advisory fees or other expenses would change as a result of the Transaction. Based on their review of the materials provided and the fact that the BlackRock Investment Advisory Agreement is substantially similar to the Previous Investment Advisory Agreement in all material respects, including the rate of compensation, the directors determined that the Transaction should not increase the total fees payable, including any fee waivers and expense reimbursements, for advisory and administrative services. The directors noted that it was not possible to predict how the Transaction would affect BlackRock Advisors' profitability from its relationship with the Fund.

The directors discussed with BlackRock Advisors its general methodology to be used in determining its profitability with respect to its relationship with the Fund. The directors noted that they expect to receive profitability information from BlackRock Advisors on at least an annual basis and thus be in a position to evaluate whether any adjustments in Fund fees and/or fee breakpoints would be appropriate.

Fees and Economies of Scale -- The Board considered the extent to which economies of scale might be realized as the assets of the Fund increase and whether there should be changes in the management fee rate or structure in order to enable the Fund to participate in these economies of scale. The Board determined that changes were not currently necessary.

In reviewing the Transaction, the directors considered, among other things, whether advisory fees or other expenses would change as a result of the Transaction. Based on the fact that the BlackRock Investment Advisory Agreement is substantially similar to the Previous Investment Advisory Agreement in all material respects, including the rate of compensation, the directors determined that as a result of the Transaction, the Fund's total advisory fees would be no higher than the fees under the Previous Investment Advisory Agreement. The directors noted that in conjunction with their most recent deliberations concerning the Previous Investment Advisory Agreement, they had determined that the total fees for advisory and administrative services for the Fund were reasonable in light of the services provided. It was noted that in conjunction with the recent review of the Previous Investment Advisory Agreement, the directors had received, among other things, a report from Lipper comparing the Fund's fees, expenses and performance to those of a peer group selected by Lipper, and information as to the fees charged by the Previous Investment Adviser or its affiliates to other registered investment company clients for investment management services. The directors concluded that because the rates for advisory fees for the Fund would be no higher than the fee rates in effect at the time, the proposed management fee structure, including any fee waivers, was reasonable and that no additional changes were currently necessary.

Fall-Out Benefits -- In evaluating the fall-out benefits to be received by BlackRock Advisors under the BlackRock Investment Advisory Agreement, the directors considered whether BlackRock Advisors would experience such benefits to the same extent that the Previous Investment Adviser was experiencing such benefits under the Previous Investment Advisory Agreement. Based on their review of the materials provided, including materials received in connection with their most recent approval of the continuance of the Previous Investment Advisory Agreement, and their discussions with management of the Previous Investment Adviser and BlackRock, the directors determined that BlackRock Advisors' fall-out benefits could include increased ability for BlackRock to distribute shares of its funds and other investment products. The directors noted that any fall-out benefits were difficult to quantify with certainty at this time, and

indicated that they would continue to evaluate them going forward.

Investment Performance -- The directors considered investment performance for the Fund. The directors compared the Fund's performance -- both including and excluding the effects of fees and expenses -- to the performance of a comparable group of funds, and the performance of a relevant index or combination of indexes. The comparative information received from Lipper showed Fund performance at various levels within the range of performance of comparable funds over different time periods. While the Board reviews

BLACKROCK MUNIVEST FUND, INC.

AUGUST 31, 2006

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Disclosure of New Investment Advisory Agreement (concluded)

performance data at least quarterly, consistent with the Previous Investment Adviser's investment goals, the Board attaches more importance over relatively long periods of time, typically three to five years. The directors believed the Fund's performance was satisfactory. Also, the directors took into account the investment performance of funds advised by BlackRock Advisors. The Board considered comparative information from Lipper which showed that the performance of the funds advised by BlackRock Advisors was within the range of performance of comparable funds over different time periods. The Board noted BlackRock's considerable investment management experience and capabilities, but was unable to predict what effect, if any, consummation of the Transaction would have on the future performance of the Fund.

Conclusion -- After the independent directors of the Fund deliberated in executive session, the entire Board, including the independent directors, approved the BlackRock Investment Advisory Agreement, concluding that the advisory fee rate was reasonable in relation to the services provided and that the BlackRock Investment Advisory Agreement was in the best interests of the shareholders. In approving the BlackRock Investment Advisory Agreement, the Board noted that it anticipated reviewing the continuance of the agreement in advance of the expiration of the initial two-year period.

New BlackRock Sub-Advisory Agreement -- Matters Considered by the Board

At an in-person meeting held on August 14-16, 2006, the Board of Directors, including the independent directors, discussed and approved the sub-advisory agreement (the "BlackRock Sub-Advisory Agreement") between BlackRock Advisors and its affiliate, BlackRock Investment Management, LLC (the "Sub-Advisor"). The BlackRock Sub-Advisory Agreement became effective on September 29, 2006, at the same time the BlackRock Investment Advisory Agreement became effective.

Pursuant to the BlackRock Sub-Advisory Agreement, the Sub-Adviser receives a monthly fee from BlackRock Advisors equal to 59% of the advisory fee received by BlackRock Advisors from the Fund. BlackRock Advisors pays the Sub-Adviser out of its own resources, and there is no increase in Fund expenses as a result of the BlackRock Sub-Advisory Agreement.

In approving the BlackRock Sub-Advisory Agreement at the August in-person meeting, the Board reviewed its considerations in connection with its approval of the BlackRock Investment Advisory Agreement in May 2006. The Board relied on the same information and considered the same factors as those discussed above in connection with the approval of the BlackRock Investment Advisory Agreement, and came to the same conclusions. In reviewing the sub-advisory fee rate provided in the BlackRock Sub-Advisory Agreement, the Board noted the fact that both BlackRock Advisors and the Sub-Adviser have significant responsibilities under their respective advisory agreements. BlackRock Advisors remains responsible for oversight of the Fund's operations and administration, and the Sub-Adviser

provides advisory services to the Fund and is responsible for the day-to-day management of the Fund's portfolio under the BlackRock Sub-Advisory Agreement. The Board also took into account the fact that there is no increase in total advisory fees paid by the Fund as a result of the BlackRock Sub-Advisory Agreement. Under all of the circumstances, the Board concluded that it was a reasonable allocation of fees for the Sub-Adviser to receive 59% of the advisory fee paid by the Fund to BlackRock Advisors.

After the independent directors deliberated in executive session, the entire Board, including the independent directors, approved the BlackRock Sub-Advisory Agreement, concluding that the sub-advisory fee was reasonable in relation to the services provided and that the Sub-Advisory Agreement was in the best interests of shareholders.

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Officers and Directors

Position(s) Length of Held with Time

Name Address & Age Fund Served Principal Occupation(s) During Past 5 Years

Interested Director

Robert C. P.O. Box 9011 President 2005 to Vice Chairman and Director of BlackRock, and Glo

Age: 52

Doll, Jr.* Princeton, NJ and present Chief Investment Officer for Equities, Chairman 08543-9011 Director the BlackRock Private Client Operating Committee and member of the BlackRock Executive Committee since 2006; President of the Funds advised by Merrill Lynch Investment Managers ("MLIM") and i affiliates ("MLIM/FAM-advised funds") from 2005 2006 and Chief Investment Officer thereof from 2 to 2006; President of MLIM and Fund Asset Management, L.P. ("FAM") from 2001 to 2006; Co-H (Americas Region) thereof from 2000 to 2001 and

> Services") since 2001; President of Princeton Administrators, L.P. ("Princeton Administrators" from 2001 to 2006; Chief Investment Officer of OppenheimerFunds, Inc. in 1999 and Executive Vic President thereof from 1991 to 1999.

Senior Vice President from 1999 to 2001; Preside and Director of Princeton Services, Inc. ("Prince

BLACKROCK MUNIVEST FUND, INC.

AUGUST 31, 2006 25

Officers and Directors (continued)

Mr. Doll is a director, trustee or member of an advisory board of certain other BlackRock acts as investment adviser. Mr. Doll is an "interested person," as de Act, of the Fund based on his current and former positions with BlackRock, Inc. serve until their resignation, removal or death, or until December 31 of the year President, Mr. Doll serves at the pleasure of the Board of Directors.

		Position(s) Held with	Length o	f
Name	Address & Age	Fund	Served	Principal Occupation(s) During Past 5 Years
Independent	Directors*			
Ronald W. Forbes**	P.O. Box 9095 Princeton, NJ 08543-9095 Age: 65	Director	1988 to present	Professor Emeritus of Finance, School of Busines State University of New York at Albany since 200 and Professor thereof from 1989 to 2000; International Consultant, Urban Institute, Washington, D.C. from 1995 to 1999.
-	P.O. Box 9095 Princeton, NJ 08543-9095 Age: 54	Director	1994 to present	Professor, Harvard Business School since 1989; Associate Professor, J.L. Kellogg Graduate School Management, Northwestern University from 1985 to 1989; Associate Professor, Graduate School of Business Administration, University of Michigan 1979 to 1985; Director, Harvard Business School Publishing since 2005; Director, McLean Hospital since 2005.
Jean Margo Reid	P.O. Box 9095 Princeton, NJ 08543-9095 Age: 61	Director	2004 to present	Self-employed consultant since 2001; Counsel of Alliance Capital Management (investment adviser) 2000; General Counsel, Director and Secretary of Sanford C. Bernstein & Co., Inc. (investment adviser/ broker-dealer) from 1997 to 2000; Secretary, Sanford C. Bernstein Fund, Inc. from to 2000; Director and Secretary of SCB, Inc. sin 1998; Director and Secretary of SCB Partners, In since 2000; and Director of Covenant House from to 2004.
Roscoe S. Suddarth	P.O. Box 9095 Princeton, NJ 08543-9095 Age: 71	Director	2000 to present	President, Middle East Institute from 1995 to 20 Foreign Service Officer, United States Foreign Service, from 1961 to 1995 and Career Minister f 1989 to 1995; Deputy Inspector General, U.S. Department of State, from 1991 to 1994; U.S. Ambassador to the Hashemite Kingdom of Jordan fr 1987 to 1990.
Richard R. West	P.O. Box 9095 Princeton, NJ 08543-9095 Age: 68	Director	1988 to present	Professor of Finance from 1984 to 1995, Dean from 1984 to 1993 and since 1995 Dean Emeritus of New York University's Leonard N. Stern School of Business Administration.

Edward D. P.O. Box 9095 Director 2000 to Self-employed financial consultant since 1994;
Zinbarg Princeton, NJ present Executive Vice President of the Prudential Insur

08543-9095

Company of America from 1988 to 1994; Former

Age: 71 Director of Prudential Reinsurance Company and former Trustee of the Prudential Foundation.

- * Directors serve until their resignation, removal or death, or until December 31
- ** Chairman of the Board of Directors and the Audit Committee.

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Officers and Directors (concluded)

Name	Address & Age	Position(s) Held with Fund	Length o Time Served	f Principal Occupation(s) During Past 5 Years
Fund Officers*				
Donald C. Burke	P.O. Box 9011 Princeton, NJ 08543-9011 Age: 46	Vice President and Treasurer	1993 to present and 1999 to present	2005 to 2006 and Treasurer thereof from 1999 to and FAM from 1997 to 2005; Senior Vice President Services from 1999 to 2006 and Director from 200
Kenneth A. Jacob	P.O. Box 9011 Princeton, NJ 08543-9011 Age: 55	Senior Vice President	2002 to present	Managing Director of BlackRock since 2006; Manag Fund Management) of MLIM from 2000 to 2006; Dire
John M. Loffredo	P.O. Box 9011 Princeton, NJ 08543-9011 Age: 42	Senior Vice President	2002 to present	Managing Director of BlackRock since 2006; Manag Fund Management) of MLIM from 2000 to 2006; Dire
Fred K. Stuebe	P.O. Box 9011 Princeton, NJ 08543-9011 Age: 55			Director of BlackRock since 2006; Director (Muni of MLIM from 2000 to 2006; Vice President of MLI
Jeffrey Hiller	P.O. Box 9011 Princeton, NJ 08543-9011 Age: 55	Fund Chief Compliance Officer	2004 to present	Managing Director of BlackRock and Fund Chief Co Compliance Officer of the MLIM/FAM-advised funds Compliance Officer of MLIM (Americas Region) fro Officer of the IQ Funds since 2004; Global Direc Investment Management from 2002 to 2004; Managin Compliance at Citigroup Asset Management from 20 Officer at Soros Fund Management in 2000; Chief Financial from 1995 to 2000; Senior Counsel in t Commission's Division of Enforcement in Washingt
Alice A. Pellegrino	P.O. Box 9011 Princeton, NJ 08543-9011 Age: 46	Secretary	2004 to present	Director of BlackRock since 2006; Director (Lega 2006; Vice President of MLIM from 1999 to 2002; 1997 to 2006; Secretary of MLIM, FAM, FAMD and P 2006.

 $^{^{\}star}$ Officers of the Fund serve at the pleasure of the Board of Directors.

Custodian

The Bank of New York 100 Church Street New York, NY 10286

Transfer Agents

Common Stock: The Bank of New York 101 Barclay Street -- 11 East New York, NY 10286

Preferred Stock:

The Bank of New York 101 Barclay Street -- 7 West New York, NY 10286

AMEX Symbol

MVF

BLACKROCK MUNIVEST FUND, INC.

AUGUST 31, 2006 27

Automatic Dividend Reinvestment Plan

How the Plan Works -- The Fund offers a Dividend Reinvestment Plan (the "Plan") under which income and capital gains dividends paid by the Fund are automatically reinvested in additional shares of Common Stock of the Fund. The Plan is administered on behalf of the shareholders by The Bank of New York (the "Plan Agent"). Under the Plan, whenever the Fund declares a dividend, participants in the Plan will receive the equivalent in shares of Common Stock of the Fund. The Plan Agent will acquire the shares for the participant's account either (i) through receipt of additional unissued but authorized shares of the Fund ("newly issued shares") or (ii) by purchase of outstanding shares of Common Stock on the open market on the New York Stock Exchange or elsewhere. If, on the dividend payment date, the Fund's net asset value per share is equal to or less than the market price per share plus estimated brokerage commissions (a condition often referred to as a "market premium"), the Plan Agent will invest the dividend amount in newly issued shares. If the Fund's net asset value per share is greater than the market price per share (a condition often referred to as a "market discount"), the Plan Agent will invest the dividend amount by purchasing on the open market additional shares. If the Plan Agent is unable to invest the full dividend amount in open market purchases, or if the market discount shifts to a market premium during the purchase period, the Plan Agent will invest any uninvested portion in newly issued shares. The shares acquired are credited to each shareholder's account. The amount credited is determined by dividing the dollar amount of the dividend by either (i) when the shares are newly issued, the net asset value per share on the date the shares are issued or (ii) when shares are purchased in the open market, the average purchase price per share.

Participation in the Plan -- Participation in the Plan is automatic, that is, a shareholder is automatically enrolled in the Plan when he or she purchases shares of Common Stock of the Fund unless the shareholder specifically elects not to participate in the Plan. Shareholders who elect not to participate will

receive all dividend distributions in cash. Shareholders who do not wish to participate in the Plan must advise the Plan Agent in writing (at the address set forth below) that they elect not to participate in the Plan. Participation in the Plan is completely voluntary and may be terminated or resumed at any time without penalty by writing to the Plan Agent.

Benefits of the Plan -- The Plan provides an easy, convenient way for shareholders to make additional, regular investments in the Fund. The Plan promotes a long-term strategy of investing at a lower cost. All shares acquired pursuant to the Plan receive voting rights. In addition, if the market price plus commissions of the Fund's shares is above the net asset value, participants in the Plan will receive shares of the Fund for less than they could otherwise purchase them and with a cash value greater than the value of any cash distribution they would have received. However, there may not be enough shares available in the market to make distributions in shares at prices below the net asset value. Also, since the Fund does not redeem shares, the price on resale may be more or less than the net asset value.

Plan Fees -- There are no enrollment fees or brokerage fees for participating in the Plan. The Plan Agent's service fees for handling the reinvestment of distributions are paid for by the Fund. However, brokerage commissions may be incurred when the Fund purchases shares on the open market and shareholders will pay a pro rata share of any such commissions.

Tax Implications -- The automatic reinvestment of dividends and distributions will not relieve participants of any federal, state or local income tax that may be payable (or required to be withheld) on such dividends. Therefore, income and capital gains may still be realized even though shareholders do not receive cash. The value of shares acquired pursuant to the Plan will generally be excluded from gross income to the extent that the cash amount reinvested would be excluded from gross income. If, when the Fund's shares are trading at a market premium, the Fund issues shares pursuant to the Plan that have a greater fair market value than the amount of cash reinvested, it is possible that all or a portion of the discount from the market value (which may not exceed 5% of the fair market value of the Fund's shares) could be viewed as a taxable distribution. If the discount is viewed as a taxable distribution, it is also possible that the taxable character of this discount would be allocable to all the shareholders, including shareholders who do not participate in the Plan. Thus, shareholders who do not participate in the Plan might be required to report as ordinary income a portion of their distributions equal to their allocable share of the discount.

Contact Information -- All correspondence concerning the Plan, including any questions about the Plan, should be directed to the Plan Agent at The Bank of New York, Church Street Station, P.O. Box 11258, New York, NY 10286-1258, Telephone: 800-432-8224.

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AUGUST 31, 2006

Dividend Policy

The Fund's dividend policy is to distribute all or a portion of its net investment income to its shareholders on a monthly basis. In order to provide shareholders with a more stable level of dividend distributions, the Fund may at times pay out less than the entire amount of net investment income earned in any particular month and may at times in any particular month pay out such accumulated but undistributed income in addition to net investment income earned in that month. As a result, the dividends paid by the Fund for any particular month may be more or less than the amount of net investment income earned by the Fund during such month. The Fund's current accumulated but undistributed net

investment income, if any, is disclosed in the Statement of Net Assets, which comprises part of the financial information included in this report.

Availability of Quarterly Schedule of Investments

The Fund files its complete schedule of portfolio holdings with the Securities and Exchange Commission ("SEC") for the first and third quarters of each fiscal year on Form N-Q. The Fund's Forms N-Q are available on the SEC's Web site at http://www.sec.gov. The Fund's Forms N-O may also be reviewed and copied at the SEC's Public Reference Room in Washington, DC. Information on the operation of the Public Reference Room may be obtained by calling 1-800-SEC-0330.

BLACKROCK MUNIVEST FUND, INC.

AUGUST 31, 2006 29

Electronic Delivery

Electronic copies of most financial reports and prospectuses are available on the Fund's Web site. Shareholders can sign up for e-mail notifications of quarterly statements, annual and semi-annual reports and prospectuses by enrolling in the Fund's electronic delivery program.

To enroll:

Shareholders Who Hold Accounts with Investment Advisers, Banks or Brokerages:

Please contact your financial adviser. Please note that not all investment advisers, banks or brokerages may offer this service.

BLACKROCK MUNIVEST FUND, INC.

AUGUST 31, 2006

BlackRock Privacy Principles

BlackRock is committed to maintaining the privacy of its current and former fund investors and individual clients (collectively, "Clients") and to safeguarding their nonpublic personal information. The following information is provided to help you understand what personal information BlackRock collects, how we protect that information and why in certain cases we share such information with select parties.

If you are located in a jurisdiction where specific laws, rules or regulations require BlackRock to provide you with additional or different privacy-related rights beyond what is set forth below, then BlackRock will comply with those specific laws, rules or regulations.

BlackRock obtains or verifies personal nonpublic information from and about you from different sources, including the following: (i) information we receive from you or, if applicable, your financial intermediary, on applications, forms or other documents; (ii) information about your transactions with us, our affiliates, or others; (iii) information we receive from a consumer reporting agency; and (iv) from visits to our Web sites.

BlackRock does not sell or disclose to nonaffiliated third parties any nonpublic personal information about its Clients, except as permitted by law or as is necessary to service Client accounts. These nonaffiliated third parties are required to protect the confidentiality and security of this information and to use it only for its intended purpose.

We may share information with our affiliates to service your account or to

provide you with information about other BlackRock products or services that may be of interest to you. In addition, BlackRock restricts access to nonpublic personal information about its Clients to those BlackRock employees with a legitimate business need for the information. BlackRock maintains physical, electronic and procedural safeguards that are designed to protect the nonpublic personal information of its Clients, including procedures relating to the proper storage and disposal of such information.

BLACKROCK MUNIVEST FUND, INC.

AUGUST 31, 2006

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BlackRock MuniVest Fund, Inc. seeks to provide shareholders with as high a level of current income exempt from federal income taxes as is consistent with its investment policies and prudent investment management by investing primarily in a portfolio of long-term, investment grade municipal obligations, the interest on which is exempt from federal income taxes in the opinion of bond counsel to the issuer.

This report, including the financial information herein, is transmitted to the shareholders of MuniVest Fund, Inc. for their information. It is not a prospectus, circular or representation intended for use in the purchase of shares of the Fund or any securities mentioned in the report. Past performance results shown in this report should not be considered a representation of future performance. The Fund has leveraged its Common Stock and intends to remain leveraged by issuing Preferred Stock to provide the Common Stock shareholders with a potentially higher rate of return. Leverage creates risks for Common Stock shareholders, including the likelihood of greater volatility of net asset value and market price of shares of the Common Stock, and the risk that fluctuations in the short-term dividend rates of the Preferred Stock may affect the yield to Common Stock shareholders. Statements and other information herein are as dated and are subject to change.

A description of the policies and procedures that the Fund uses to determine how to vote proxies relating to portfolio securities is available (1) without charge, upon request, by calling toll-free 1-800-441-7762; (2) at www.blackrock.com; and (3) on the Securities and Exchange Commission's Web site at http://www.sec.gov. Information about how the Fund voted proxies relating to securities held in the Fund's portfolio during the most recent 12-month period ended June 30 is available (1) at www.blackrock.com and (2) on the Securities and Exchange Commission's Web site at http://www.sec.gov.

BlackRock MuniVest Fund, Inc. Box 9011 Princeton, NJ 08543-9011

BLACKROCK

#10787-8/06

- Item 2 Code of Ethics The registrant has adopted a code of ethics, as of the end of the period covered by this report, that applies to the registrant's principal executive officer, principal financial officer and principal accounting officer, or persons performing similar functions. A copy of the code of ethics is available without charge at www.blackrock.com.
- Item 3 Audit Committee Financial Expert The registrant's board of directors
 has determined that (i) the registrant has the following audit
 committee financial experts serving on its audit committee and (ii)

each audit committee financial expert is independent: (1) Ronald W. Forbes, (2) Richard R. West, and (3) Edward D. Zinbarg.

Item 4 - Principal Accountant Fees and Services

- (a) Audit Fees Fiscal Year Ending August 31, 2006 \$30,500 Fiscal Year Ending August 31, 2005 \$30,000
- (b) Audit-Related Fees Fiscal Year Ending August 31, 2006 \$3,500 Fiscal Year Ending August 31, 2005 - \$16,400

The nature of the services include assurance and related services reasonably related to the performance of the audit of financial statements not included in Audit Fees as well as \$12,400 associated with the issuance of a new series of AMPS.

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(c) Tax Fees - Fiscal Year Ending August 31, 2006 - $6,000 Fiscal Year Ending August 31, 2005 - $7,000
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The nature of the services include tax compliance, tax advice and tax planning.

- (d) All Other Fees Fiscal Year Ending August 31, 2006 \$0 Fiscal Year Ending August 31, 2005 - \$0
- (e)(1) The registrant's audit committee (the "Committee") has adopted policies and procedures with regard to the pre-approval of services. Audit, audit-related and tax compliance services provided to the registrant on an annual basis require specific pre-approval by the Committee. The Committee also must approve other non-audit services provided to the registrant and those non-audit services provided to the registrant's affiliated service providers that relate directly to the operations and the financial reporting of the registrant. Certain of these non-audit services that the Committee believes are a) consistent with the SEC's auditor independence rules and b) routine and recurring services that will not impair the independence of the independent accountants may be approved by the Committee without consideration on a specific case-by-case basis ("general pre-approval"). However, such services will only be deemed pre-approved provided that any individual project does not exceed \$5,000 attributable to the registrant or \$50,000 for all of the registrants the Committee oversees. Any proposed services exceeding the pre-approved cost levels will require specific pre-approval by the Committee, as will any other services not subject to general pre-approval (e.g., unanticipated but permissible services). The Committee is informed of each service approved subject to general pre-approval at the next regularly scheduled in-person board meeting.
- (e)(2) 0%
- (f) Not Applicable
- (g) Fiscal Year Ending August 31, 2006 \$3,098,500 Fiscal Year Ending August 31, 2005 - \$7,377,027
- (h) The registrant's audit committee has considered and determined that the provision of non-audit services that were rendered to the registrant's investment adviser and any entity controlling, controlled by, or under common control with the investment adviser that provides ongoing services to the registrant that were not pre-approved pursuant to paragraph (c) (7) (ii) of Rule 2-01 of Regulation S-X is compatible

with maintaining the principal accountant's independence.

Regulation S-X Rule 2-01(c)(7)(ii) - \$1,739,500,0\$

Item 5 - Audit Committee of Listed Registrants - The following individuals are
 members of the registrant's separately-designated standing audit
 committee established in accordance with Section 3(a)(58)(A) of the
 Exchange Act (15 U.S.C. 78c(a)(58)(A)):

Ronald W. Forbes Cynthia A. Montgomery Jean Margo Reid Roscoe S. Suddarth Richard R. West Edward D. Zinbarg

Item 6 - Schedule of Investments - Not Applicable

Proxy Voting Policies and Procedures

Each Fund's Board of Directors/Trustees has delegated to Merrill Lynch Investment Managers, L.P. and/or Fund Asset Management, L.P. (the "Investment Adviser") authority to vote all proxies relating to the Fund's portfolio securities. The Investment Adviser has adopted policies and procedures ("Proxy Voting Procedures") with respect to the voting of proxies related to the portfolio securities held in the account of one or more of its clients, including a Fund. Pursuant to these Proxy Voting Procedures, the Investment Adviser's primary objective when voting proxies is to make proxy voting decisions solely in the best interests of each Fund and its shareholders, and to act in a manner that the Investment Adviser believes is most likely to enhance the economic value of the securities held by the Fund. The Proxy Voting Procedures are designed to ensure that the Investment Adviser considers the interests of its clients, including the Funds, and not the interests of the Investment Adviser, when voting proxies and that real (or perceived) material conflicts that may arise between the Investment Adviser's interest and those of the Investment Adviser's clients are properly addressed and resolved.

In order to implement the Proxy Voting Procedures, the Investment Adviser has formed a Proxy Voting Committee (the "Committee"). The Committee is comprised of the Investment Adviser's Chief Investment Officer (the "CIO"), one or more other senior investment professionals appointed by the CIO, portfolio managers and investment analysts appointed by the CIO and any other personnel the CIO deems appropriate. The Committee will also include two non-voting representatives from the Investment Adviser's Legal department appointed by the Investment Adviser's General Counsel. The Committee's membership shall be limited to full-time employees of the Investment Adviser. No person with any investment banking, trading, retail brokerage or research responsibilities for the Investment Adviser's affiliates may serve as a member of the Committee or participate in its decision making (except to the extent such person is asked by the Committee to present information to the Committee, on the same basis as other interested

knowledgeable parties not affiliated with the Investment Adviser might be asked to do so). The Committee determines how to vote the proxies of

all clients, including a Fund, that have delegated proxy voting authority to the Investment Adviser and seeks to ensure that all votes are consistent with the best interests of those clients and are free from unwarranted and inappropriate influences. The Committee establishes general proxy voting policies for the Investment Adviser and is responsible for determining how those policies are applied to specific proxy votes, in light of each issuer's unique structure, management, strategic options and, in certain circumstances, probable economic and other anticipated consequences of alternate actions. In so doing, the Committee may determine to vote a particular proxy in a manner contrary to its generally stated policies. In addition, the Committee will be responsible for ensuring that all reporting and recordkeeping requirements related to proxy voting are fulfilled.

The Committee may determine that the subject matter of a recurring proxy issue is not suitable for general voting policies and requires a case-by-case determination. In such cases, the Committee may elect not to adopt a specific voting policy applicable to that issue. The Investment Adviser believes that certain proxy voting issues require investment analysis - such as approval of mergers and other significant corporate transactions - akin to investment decisions, and are, therefore, not suitable for general guidelines. The Committee may elect to adopt a common position for the Investment Adviser on certain proxy votes that are akin to investment decisions, or determine to permit the portfolio manager to make individual decisions on how best to maximize economic value for a Fund (similar to normal buy/sell investment decisions made by such portfolio managers). While it is expected that the Investment Adviser will generally seek to vote proxies over which the Investment Adviser exercises voting authority in a uniform manner for all the Investment Adviser's clients, the Committee, in conjunction with a Fund's portfolio manager, may determine that the Fund's specific circumstances require that its proxies be voted differently.

To assist the Investment Adviser in voting proxies, the Committee has retained Institutional Shareholder Services ("ISS"). ISS is an independent adviser that specializes in providing a variety of fiduciary-level proxy-related services to institutional investment managers, plan sponsors, custodians, consultants, and other institutional investors. The services provided to the Investment Adviser by ISS include in-depth research, voting recommendations (although the Investment Adviser is not obligated to follow such recommendations), vote execution, and recordkeeping. ISS will also assist the Fund in fulfilling its reporting and recordkeeping obligations under the Investment Company Act.

The Investment Adviser's Proxy Voting Procedures also address special circumstances that can arise in connection with proxy voting. For instance, under the Proxy Voting Procedures, the Investment Adviser generally will not seek to vote proxies related to portfolio securities that are on loan, although it may do so under certain circumstances. In addition, the Investment Adviser will vote proxies related to securities of foreign issuers only on a best efforts basis and may elect not to vote at all in certain countries where the Committee determines that the costs associated with voting generally outweigh the benefits. The Committee may at any time override these general policies if it determines that such action is in the best interests of a Fund.

From time to time, the Investment Adviser may be required to vote proxies in respect of an issuer where an affiliate of the Investment Adviser (each, an "Affiliate"), or a money management or other client of the Investment Adviser (each, a "Client") is involved. The Proxy Voting Procedures and the Investment Adviser's adherence to those procedures are designed to address such conflicts

of interest. The Committee intends to strictly adhere to the Proxy Voting Procedures in all proxy matters, including matters involving Affiliates and Clients. If, however, an issue representing a non-routine matter that is material to an Affiliate or a widely known Client is involved such that the Committee does not reasonably believe it is able to follow its guidelines (or if the particular proxy matter is not addressed by the guidelines) and vote impartially, the Committee may, in its discretion for the purposes of ensuring that an independent determination is reached, retain an independent fiduciary to advise the Committee on how to vote or to cast votes on behalf of the Investment Adviser's clients.

In the event that the Committee determines not to retain an independent fiduciary, or it does not follow the advice of such an independent fiduciary, the powers of the Committee shall pass to a subcommittee, appointed by the CIO (with advice from the Secretary of the Committee), consisting solely of Committee members selected by the CIO. The CIO shall appoint to the subcommittee, where appropriate, only persons whose job responsibilities do not include contact with the Client and whose job evaluations would not be affected by the Investment Adviser's relationship with the Client (or failure to retain such relationship). The subcommittee shall determine whether and how to vote all proxies on behalf of the Investment Adviser's clients or, if the proxy matter is, in their judgment, akin to an investment decision, to defer to the applicable portfolio managers, provided that, if the subcommittee determines to alter the Investment Adviser's normal voting guidelines or, on matters where the Investment Adviser's policy is case-by-case, does not follow the voting recommendation of any proxy voting service or other independent fiduciary that may be retained to provide research or advice to the Investment Adviser on that matter, no proxies relating to the Client may be voted unless the Secretary, or in the Secretary's absence, the Assistant Secretary of the Committee concurs that the subcommittee's determination is consistent with the Investment Adviser's fiduciary duties

In addition to the general principles outlined above, the Investment Adviser has adopted voting guidelines with respect to certain recurring proxy issues that are not expected to involve unusual circumstances. These policies are guidelines only, and the Investment Adviser may elect to vote differently from the recommendation set forth in a voting guideline if the Committee determines that it is in a Fund's best interest to do so. In addition, the guidelines may be reviewed at any time upon the request of a Committee member and may be amended or deleted upon the vote of a majority of Committee members present at a Committee meeting at which there is a quorum.

The Investment Adviser has adopted specific voting guidelines with respect to the following proxy issues:

Proposals related to the composition of the Board of Directors of issuers other than investment companies. As a general matter, the Committee believes that a company's Board of Directors (rather than shareholders) is most likely to have access to important, nonpublic information regarding a company's business and prospects, and is therefore best-positioned to set corporate policy and oversee management. The Committee, therefore, believes that the foundation of good corporate governance is the election of qualified, independent corporate directors who are likely to diligently represent the interests of shareholders and oversee management of the corporation in a manner that will seek to maximize shareholder value over time. In individual cases, the Committee may look at a nominee's history of representing shareholder interests as a director of other companies or

other factors, to the extent the Committee deems relevant.

- Proposals related to the selection of an issuer's independent auditors. As a general matter, the Committee believes that corporate auditors have a responsibility to represent the interests of shareholders and provide an independent view on the propriety of financial reporting decisions of corporate management. While the Committee will generally defer to a corporation's choice of auditor, in individual cases, the Committee may look at an auditors' history of representing shareholder interests as auditor of other companies, to the extent the Committee deems relevant.
- Proposals related to management compensation and employee benefits. As a general matter, the Committee favors disclosure of an issuer's compensation and benefit policies and opposes excessive compensation, but believes that compensation matters are normally best determined by an issuer's board of directors, rather than shareholders. Proposals to "micro-manage" an issuer's compensation practices or to set arbitrary restrictions on compensation or benefits will, therefore, generally not be supported.
- o Proposals related to requests, principally from management, for approval of amendments that would alter an issuer's capital structure. As a general matter, the Committee will support requests that enhance the rights of common shareholders and oppose requests that appear to be unreasonably dilutive.
- o Proposals related to requests for approval of amendments to an issuer's charter or by-laws. As a general matter, the Committee opposes poison pill provisions.
- o Routine proposals related to requests regarding the formalities of corporate meetings.
- o Proposals related to proxy issues associated solely with holdings of investment company shares. As with other types of companies, the Committee believes that a fund's Board of Directors (rather than its shareholders) is best-positioned to set fund policy and oversee management. However, the Committee opposes granting Boards of Directors authority over certain matters, such as changes to a fund's investment objective, that the Investment Company Act envisions will be approved directly by shareholders.
- Proposals related to limiting corporate conduct in some manner that relates to the shareholder's environmental or social concerns. The Committee generally believes that annual shareholder meetings are inappropriate forums for discussion of larger social issues, and opposes shareholder resolutions "micromanaging" corporate conduct or requesting release of information that would not help a shareholder evaluate an investment in the corporation as an economic matter. While the Committee is generally supportive of proposals to require corporate disclosure of matters that seem relevant and material to the economic interests of shareholders, the Committee is generally not supportive of proposals to require disclosure of corporate matters for other purposes.
- Item 8 Portfolio Managers of Closed-End Management Investment Companies as of October 2, 2006.
 - (a) (1) BlackRock MuniVest Fund, Inc. is managed by a team of investment professionals comprised of Fred K. Stuebe, Director at BlackRock, Theodore R. Jaeckel, Jr., CFA, Managing Director at BlackRock, and

Walter O'Connor, Managing Director at BlackRock. Each is a member of BlackRock's municipal tax-exempt management group. Mr. Jaeckel and Mr. O'Connor are responsible for setting the Fund's overall investment strategy and overseeing the management of the Fund. Mr. Stuebe is the Fund's lead portfolio manager and is responsible for the day-to-day management of the Fund's portfolio and the selection of its investments. Messrs. Jaeckel and O'Connor have been members of the Fund's management team since 2006 and Mr. Stuebe has been the Fund's portfolio manager since 1989.

Mr. Jaeckel joined BlackRock in 2006. Prior to joining BlackRock, he was a Managing Director (Municipal Tax-Exempt Fund Management) of Merrill Lynch Investment Managers, L.P. (""MLIM") from 2005 to 2006 and a Director of MLIM from 1997 to 2005. He has been a portfolio manager with BlackRock or MLIM since 1991.

Mr. O'Connor joined BlackRock in 2006. Prior to joining BlackRock, he was a Managing Director (Municipal Tax-Exempt Fund Management) of MLIM from 2003 to 2006 and was a Director of MLIM from 1997 to 2002. He has been a portfolio manager with BlackRock or MLIM since 1991.

Mr. Stuebe joined BlackRock in 2006. Prior to joining BlackRock, he was a Director (Municipal Tax-Exempt Fund Management) of MLIM from 2000 to 2006. He has 25 years of experience investing in Municipal Bonds as a portfolio manager on behalf of registered investment companies.

(a)(2) As of October 2, 2006:

(ii) Number of Other Accounts Managed and Assets by Account Type

(iii) Number of Assets for Whic Perform

(i) Name of Portfolio Manager	Other Registered Investment Companies	Other Pooled Investment Vehicles		Other Accounts			Other Registered Investment Companies		
- 1 - 1			0		0				
Fred Stuebe	8		0		0		0		
	\$ 2,105,064,829	\$	0	\$	0	\$	0	Ş	
Theodore R									
Jaeckel, Jr	83		0		0		0		
	\$23,255,333,377	\$	0	\$	0	\$	0	\$	
Walter									
O'Connor	83		0		0		0		
	\$23,255,333,377	\$	0	\$	0	\$	0	\$	

(iv) Potential Material Conflicts of Interest

BlackRock has built a professional working environment, firm-wide compliance culture and compliance procedures and systems designed to protect against potential incentives that may favor one account over another. BlackRock has adopted policies and procedures that address the allocation of investment opportunities, execution of portfolio transactions, personal trading by employees and other potential conflicts of interest that are designed to ensure that all client accounts are treated equitably over time. Nevertheless, BlackRock furnishes investment management and advisory services to numerous

clients in addition to the Fund, and BlackRock may, consistent with applicable law, make investment recommendations to other clients or accounts (including accounts which are hedge funds or have performance or higher fees paid to BlackRock, or in which portfolio managers have a personal interest in the receipt of such fees), which may be the same as or different from those made to the Fund. In addition, BlackRock, its affiliates and any officer, director, stockholder or employee may or may not have an interest in the securities whose purchase and sale BlackRock recommends to the Fund. BlackRock, or any of its affiliates, or any officer, director, stockholder, employee or any member of their families may take different actions than those recommended to the Fund by BlackRock with respect to the same securities. Moreover, BlackRock may refrain from rendering any advice or services concerning securities of companies of which any of BlackRock's (or its affiliates') officers, directors or employees are directors or officers, or companies as to which BlackRock or any of its affiliates or the officers, directors and employees of any of them has any substantial economic interest or possesses material non-public information. Each portfolio manager also may manage accounts whose investment strategies may at times be opposed to the strategy utilized for the Fund. In this connection, it should be noted that certain portfolio managers currently manage certain accounts that are subject to performance fees. In addition, certain portfolio managers assist in managing certain hedge funds and may be entitled to receive a portion of any incentive fees earned on such funds and a portion of such incentive fees may be voluntarily or involuntarily deferred. Additional portfolio managers may in the future manage other such accounts or funds and may be entitled to receive incentive fees.

As a fiduciary, BlackRock owes a duty of loyalty to its clients and must treat each client fairly. When BlackRock purchases or sells securities for more than one account, the trades must be allocated in a manner consistent with its fiduciary duties. BlackRock attempts to allocate investments in a fair and equitable manner among client accounts, with no account receiving preferential treatment. To this end, BlackRock has adopted a policy that is intended to ensure that investment opportunities are allocated fairly and equitably among client accounts over time. This policy also seeks to achieve reasonable efficiency in client transactions and provide BlackRock with sufficient flexibility to allocate investments in a manner that is consistent with the particular investment discipline and client base.

(a)(3) As of October 2, 2006:

BlackRock has adopted the compensation program utilized by MLIM for the remainder of 2006 with respect to portfolio managers of the Fund.

Portfolio Manager Compensation

The Portfolio Manager Compensation Program of BlackRock and its affiliates, including the Investment Adviser, is critical to BlackRock's ability to attract and retain the most talented asset management professionals. This program ensures that compensation is aligned with maximizing investment returns and it provides a competitive pay opportunity for competitive performance.

Compensation Program

The elements of total compensation for certain BlackRock and its affiliates portfolio managers are a fixed base salary, annual performance-based cash and stock compensation (cash and stock bonus) and other benefits. BlackRock has balanced these components of pay to provide portfolio managers with a

powerful incentive to achieve consistently superior investment performance. By design, portfolio manager compensation levels fluctuate—both up and down—with the relative investment performance of the portfolios that they manage.

Base Salary

Under the BlackRock approach, like that of many asset management firms, base salaries represent a relatively small portion of a portfolio manager's total compensation. This approach serves to enhance the motivational value of the performance-based (and therefore variable) compensation elements of the compensation program.

Performance-Based Compensation

BlackRock believes that the best interests of investors are served by recruiting and retaining exceptional asset management talent and managing their compensation within a consistent and disciplined framework that emphasizes pay for performance in the context of an intensely competitive market for talent. To that end, certain BlackRock and its affiliates portfolio manager incentive compensation is based on a formulaic compensation program. BlackRock's formulaic portfolio manager compensation program includes: investment performance relative to a subset of general, leveraged, municipal debt funds over 1-, 3- and 5-year performance periods and a measure of operational efficiency. Portfolio managers are compensated based on the pre-tax performance of the products they manage. If a portfolio manager's tenure is less than 5 years, performance periods will reflect time in position. Portfolio managers are compensated based on products they manage. A discretionary element of portfolio manager compensation may include consideration of: financial results, expense control, profit margins, strategic planning and implementation, quality of client service, market share, corporate reputation, capital allocation, compliance and risk control, leadership, workforce diversity, supervision, technology and innovation. All factors are considered collectively by BlackRock management.

Cash Bonus

Performance-based compensation is distributed to portfolio managers in a combination of cash and stock. Typically, the cash bonus, when combined with base salary, represents more than 60% of total compensation for portfolio managers.

Stock Bonus

A portion of the dollar value of the total annual performance-based bonus is paid in restricted shares of BlackRock stock. Paying a portion of annual bonuses in stock puts compensation earned by a portfolio manager for a given year "at risk" based on the company's ability to sustain and improve its performance over future periods. The ultimate value of stock bonuses is dependent on future BlackRock stock price performance. As such, the stock bonus aligns each portfolio manager's financial interests with those of the BlackRock shareholders and encourages a balance between short-term goals and long-term strategic objectives. Management strongly believes that providing a significant portion of competitive performance-based compensation in stock is in the best interests of investors and shareholders. This approach ensures that portfolio managers participate as shareholders in both the "downside risk" and "upside opportunity" of the company's performance. Portfolio managers therefore have a direct incentive to protect BlackRock's reputation for integrity.

Other Compensation Programs

Portfolio managers who meet relative investment performance and financial

management objectives during a performance year are eligible to participate in a deferred cash program. Awards under this program are in the form of deferred cash that may be benchmarked to a menu of certain BlackRock mutual funds (including their own fund) during a five-year vesting period. The deferred cash program aligns the interests of participating portfolio managers with the investment results of BlackRock products and promotes continuity of successful portfolio management teams.

Other Benefits

Portfolio managers are also eligible to participate in broad-based plans offered generally to employees of BlackRock and its affiliates, including broad-based retirement, 401(k), health, and other employee benefit plans.

- (a) (4) Beneficial Ownership of Securities. As of October 2, 2006, Mr. Stuebe beneficially owns stock issued by the Fund valued in the range \$100,001-\$500,000. As of October 2, 2006, neither of Messrs. Jaeckel or O'Connor beneficially owns any stock issued by the Fund.
- Item 10 Submission of Matters to a Vote of Security Holders The registrant's Nominating Committee will consider nominees to the Board recommended by shareholders when a vacancy becomes available. Shareholders who wish to recommend a nominee should send nominations which include biographical information and sets forth the qualifications of the proposed nominee to the registrant's Secretary. There have been no material changes to these procedures.
- Item 11 Controls and Procedures
- 11(a) The registrant's certifying officers have reasonably designed such disclosure controls and procedures to ensure material information relating to the registrant is made known to us by others particularly during the period in which this report is being prepared. The registrant's certifying officers have determined that the registrant's disclosure controls and procedures are effective based on our evaluation of these controls and procedures as of a date within 90 days prior to the filing date of this report.
- 11(b) There were no changes in the registrant's internal control over
 financial reporting (as defined in Rule 30a-3(d) under the Act (17 CFR
 270.30a-3(d)) that occurred during the second fiscal half-year of the
 period covered by this report that has materially affected, or is
 reasonably likely to materially affect, the registrant's internal
 control over financial reporting.
- Item 12 Exhibits attached hereto
- 12(a)(1) Code of Ethics See Item 2
- 12(a)(2) Certifications Attached hereto
- 12(a)(3) Not Applicable
- 12(b) 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/ Robert C. Doll, Jr.

Robert C. Doll, Jr.,
Chief Executive Officer of

BlackRock MuniVest Fund, Inc.

Date: October 19, 2006

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/ Robert C. Doll, Jr.

Robert C. Doll, Jr., Chief Executive Officer of BlackRock MuniVest Fund, Inc.

Date: October 19, 2006

By: /s/ Donald C. Burke

Donald C. Burke, Chief Financial Officer of BlackRock MuniVest Fund, Inc.

Date: October 19, 2006