MUNIVEST FUND INC
Form N-CSR
October 29, 2004

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 811-5611

Name of Fund: MuniVest Fund, Inc.

Fund Address: P.O. Box 9011
Princeton, NJ 08543-9011

Name and address of agent for service: Terry K. Glenn, President, 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: 08/31/04

Date of reporting period: 09/01/03 - 08/31/04

Item 1 - Report to Stockholders

[LOGO] Merrill Lynch Investment Managers www.mlim.ml.com

MuniVest Fund, Inc.

Annual Report
August 31, 2004

[LOGO] Merrill Lynch Investment Managers

MuniVest Fund, Inc.

The Benefits and Risks of Leveraging

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, 2004, the percentage of the Fund's total net assets invested in inverse floaters was 13.75%, before the deduction of Preferred Stock.

Swap Agreements

The Fund may also 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.

A Letter From the President

Dear Shareholder

In recent months, the Federal Reserve Board (the Fed) has taken center stage as it shifts away from its long-accommodative monetary stance. The Fed raised the Federal Funds rate 75 basis points (.75%) in three separate moves since June, bringing the target short-term interest rate to 1.75% -- still low by historical standards. The Fed has been deliberate in telegraphing its intention to take a "measured" approach to interest rate increases in order to avoid upsetting the economy or the financial markets, while still leaving room to move more aggressively if inflation and economic growth accelerate more than anticipated. The forward curve currently projects further increases in short-term interest rates before year-end. In addition to the Fed policy change, the financial markets recently have had to grapple with a tense geopolitical environment, higher oil prices and the worry and anticipation that accompanies a presidential election.

The transition to higher rates can cause concern among equity and fixed income investors alike. For bond investors, rising interest rates means the value of older issues declines because they bear the former lower interest rates. In addition, increasing inflation erodes the purchasing power of fixed income securities. However, because municipal bonds offer the advantage of tax-exempt income, they continue to be an attractive alternative for many fixed income investors. For the 12-month period ended August 31, 2004, municipal bonds posted a return of +7.11%, as measured by the Lehman Brothers Municipal Bond Index.

As always, our investment professionals are closely monitoring the markets, the economy and the overall environment in an effort to make well-informed decisions for the portfolios they manage. Our goal is to provide shareholders with competitive returns, while always keeping one eye on managing the unavoidable risk inherent in investing.

We thank you for trusting Merrill Lynch Investment Managers with your investment assets, and we look forward to serving you in the months and years ahead.

Sincerely,

/s/ Terry K. Glenn

Terry K. Glenn
President and Director

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A Discussion With Your Fund's Portfolio Manager

The Fund was able to outperform its Lipper category average for the period, as we remained focused on enhancing yield and preserving net asset value in a volatile interest rate environment.

Describe the recent market environment relative to municipal bonds.

Amid considerable monthly volatility, long-term U.S. Treasury bond yields finished the 12-month period ended August 31, 2004 lower than where they began. At the start of the period, bond yields declined as bond prices -- which move in the opposite direction -- rose. Despite continued improvement in U.S. economic conditions, solid job creation remained elusive. Consumer confidence faltered, and investors became increasingly convinced that the Federal Reserve Board (the Fed) would hold short-term interest rates at their historic lows. Under the circumstances, 30-year U.S. Treasury bond yields declined to 4.65% by mid-March.

In early April, however, monthly employment reports began to show unexpectedly large gains. In response, bond yields increased as their prices fell. Associated improvements in consumer confidence and spending led some investors to reverse their earlier expectations, believing instead that the Fed would soon be forced to raise short-term interest rates to ward off potential inflation. By early June, long-term U.S. Treasury bond yields had risen above 5.50%.

For the remainder of the period, bond yields generally declined. Payroll growth had begun to wane and inflationary measures continued to be negligible. Although the Fed began raising interest rates (.25% in June, .25% in August and another .25% in September, bringing the target rate to 1.75%), it seemed committed to a measured tightening policy. This effectively removed much of the earlier concern over the potential for a prolonged series of interest rate increases. The prospect for a measured, moderate tightening sequence helped support higher bond prices (and lower yields) for the remainder of the Fund's fiscal year. By the end of August 2004, long-term U.S. Treasury bond yields stood at 4.93%, a decline of almost 30 basis points (.30%) over the past year. The 10-year U.S. Treasury note yield ended the period at 4.12%, a decrease of 35 basis points during the 12-month period.

Tax-exempt issues, supported by a favorable technical backdrop, exhibited less volatility than their taxable counterparts during the year. Declining supply trends allowed tax-exempt bond prices to register moderate gains. As measured by the Bond Buyer Revenue Bond Index, yields on long-term revenue bonds fell approximately 30 basis points over the past year. According to Municipal Market Data, yields on Aaa-rated issues maturing in 30 years declined more than 30 basis points to 4.70%, and yields on 10-year Aaa-rated issues fell more than 40 basis points to 3.50%.

In terms of new issuance, more than $360 billion in new long-term tax-exempt bonds was underwritten in the past 12 months, a decline of approximately 6% compared to last year. Approximately $95 billion in long-term tax-exempt bonds was issued in the last three months of the fiscal year, a decline of nearly 15% versus the same period a year ago. The tax-exempt bond market maintained a positive supply/demand position throughout the reporting period, allowing municipal issues to outperform their taxable counterparts. New-issue volume is expected to remain manageable, continuing to support the tax-exempt market's favorable technical position for the remainder of the year. In addition, attractive yield ratios compared to taxable securities should continue to draw both traditional and non-traditional investors to the tax-exempt market.

How did the Fund perform during the fiscal year in light of the existing market conditions?

For the fiscal year ended August 31, 2004, the Common Stock of MuniVest Fund, Inc. had net annualized yields of 6.66% and 7.10%, based on a period-end per share net asset value of $9.91 and a per share market price of $9.30, respectively, and $.660 per share income dividends. Over the same period, the total investment return on the Fund's Common Stock was +11.60%, based on a change in per share net asset value from $9.54 to $9.91, and assuming reinvestment of $.657 per share ordinary income dividends.

The Fund's total return, based on net asset value, exceeded the +11.01% average return of the Lipper General Municipal Debt Funds (Leveraged) category for the 12 months ended August 31, 2004. (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 was able to achieve this favorable result despite maintaining a modest defensive position throughout most of the reporting period. Recently, performance has been aided both by the Fund's above-average dividend yield and positive security selection.

For the six-month period ended August 31, 2004, the total investment return on the Fund's Common Stock was +0.54%, based on a change in per share net asset value from $10.23 to $9.91, and assuming reinvestment of $.336 per share income dividends.

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?

In general, we continued to focus on adding higher-yielding, lower-rated bonds to the portfolio whenever they were attractively priced. These issues allowed the Fund to distribute an above-average market yield and performed well as the municipal bond market improved in the latter months of the Fund's fiscal year.

In addition, we significantly increased the Fund's holdings in California general obligation (GO) bonds and other state-related issues. Earlier this year, in response to the negative publicity surrounding the state's budgetary difficulties, prices of California GO bonds materially weakened relative to the rest of the tax-exempt market. We viewed this as an attractive opportunity to add fundamentally strong credit issues at distressed levels. This proved to be a beneficial decision, as California state issues were recently upgraded by the major credit-rating agencies. The resultant market price improvement for these bonds positively impacted the Fund's performance.

For the six-month period ended August 31, 2004, the Fund's Auction Market Preferred Stock (AMPS) had average yields as follows: Series A, 1.10%; Series B, .94%; Series C, 1.00%; Series D, 1.13%; and Series E, .97%. These attractive funding levels, even after the recent interest rate increases, continued to generate a significant income benefit to the Fund's Common Stock shareholders. While additional interest rate hikes are anticipated, future increases are not expected to be sizeable or protracted. Most importantly, the spread between short-term and long-term tax-exempt interest rates has remained historically wide. In fact, the spread at period-end was wider than it was at the end of August 2000 and August 2001. Of course, should the spread between short-term and long-term interest rates narrow, the benefits of leveraging will decline and, as a result, reduce the yield on the Fund's Common Stock. At the end of the period, the Fund's leverage amount, due to AMPS, was 35.45% of total net assets, before the deduction of Preferred Stock. (For a more complete explanation of the benefits and risks of leveraging, see page 2 of this report to shareholders.)

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

We ended the period in a defensive position with respect to future interest rate movements. Low historic bond yields suggest that an emphasis on higher-yielding instruments over more interest rate sensitive issues is the more prudent long-term strategy. Consequently, the Fund is structured to perform better in stable-to-rising interest rate environments. We intend to keep limited cash reserves in an effort to enhance the Fund's dividend income stream.

Looking ahead, we believe that economic growth will remain moderate and should eventually translate into modestly higher interest rate levels. The strong technical environment municipal bonds have enjoyed is expected to continue in the coming months, insulating the tax-exempt market from much of the anticipated interest rate volatility.

Fred K. Stuebe
Vice President and Portfolio Manager

September 22, 2004

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Schedule of Investments (in Thousands)

State	S&P Ratings+	Moody's Ratings+	Face Amount	Municipal Bonds
Alabama--4.4%	BBB	NR*	$ 2,550	Camden, Alabama, IDB, Exempt Facilities Rev Company), Series A, 6.125% due 12/01/2024
	BBB	Baa2	7,500	Courtland, Alabama, IDB, Solid Waste Dispos (Champion International Corporation Project due 9/01/2025
				Huntsville, Alabama, Health Care Authority
	NR*	A2	3,500	Series A, 5.75% due 6/01/2031
	NR*	A2	7,000	Series B, 5.75% due 6/01/2032
	BBB	Baa2	5,000	Selma, Alabama, IDB, Environmental Improvem Bonds (International Paper Company Project) due 5/01/2020
Alaska--1.4%				Anchorage, Alaska, Lease Revenue Bonds (Cor
	AAA	Aaa	3,575	6% due 2/01/2014
	AAA	Aaa	3,830	6% due 2/01/2016
Arizona--1.0%	NR*	Baa3	4,375	Maricopa County, Arizona, IDA, Education Re Charter Schools Project 1), Series A, 6.75%
				Pima County, Arizona, IDA, Education Revenu Schools Project), Series I:
	NR*	Baa3	500	6.10% due 7/01/2024
	NR*	Baa3	1,000	6.30% due 7/01/2031
California--25.3%				California State, GO, Refunding:
	AAA	Aaa	10,000	5% due 2/01/2031 (c)
	A	A3	9,600	5.125% due 6/01/2031
				California State Public Works Board, Lease
	A-	Baa1	3,170	(California Community Colleges), Seri
	A-	Baa1	5,000	(Department of Corrections), Series C
	A-	Baa1	6,000	(Department of Corrections), Series C
	A-	Baa1	19,415	(Department of Mental Health--Coaling Series A, 5.125% due 6/01/2029
				California State, Various Purpose, GO:
	A	Aaa	13,570	5.50% due 4/01/2030

State	S&P Ratings+	Moody's Ratings+	Face Amount	Municipal Bonds
	A	A3	21,250	5.50% due 11/01/2033
	A	A3	5,240	California Statewide Communities Developmen Facility Revenue Bonds (Memorial Health Ser due 10/01/2023
				Golden State Tobacco Securitization Corpora Tobacco Settlement Revenue Bonds:
	BBB	Baa3	7,280	Series A-3, 7.875% due 6/01/2042
	BBB	Baa3	3,250	Series A-4, 7.80% due 6/01/2042
	BBB	Baa3	1,125	Series A-5, 7.875% due 6/01/2042
	A-	Baa1	13,900	Series B, 5.375% due 6/01/2028
	A-	Baa1	8,850	Series B, 5.50% due 6/01/2033
	AAA	Aaa	15,000	Series B, 5.50% due 6/01/2033 (f)
	AAA	Aaa	5,000	Series B, 5.50% due 6/01/2043 (f)
Colorado--2.7%				Arapahoe County, Colorado, School District (Cherry Creek):
	AA	Aa2	5,750	6% due 12/15/2013
	AA	Aa2	4,165	6% due 12/15/2014
				Colorado HFA, Revenue Refunding Bonds (S/F Series A-2:
	NR*	Aa2	1,465	6.60% due 5/01/2028
	NR*	Aa2	550	7.50% due 4/01/2031
	A-	A3	3,000	Colorado Health Facilities Authority Revenu Center), Series A, 5.25% due 6/01/2034

Portfolio Abbreviations

To simplify the listings of 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
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
RITR	Residual Interest Trust Receipts
S/F	Single-Family

Schedule of Investments (continued) (in Thousands)

State	S&P Ratings+	Moody's Ratings+	Face Amount	Municipal Bonds
Connecticut--0.5%	BBB-	NR*	$ 2,810	Mohegan Tribe Indians, Connecticut, Gaming Improvement Revenue Refunding Bonds (Priori due 1/01/2031

Florida--1.1%	A	A2	5,000	Highlands County, Florida, Health Facilitie Revenue Bonds (Adventist Health System), Se 11/15/2035
	A	A2	1,880	Orange County, Florida, Health Facilities A Revenue Bonds (Adventist Health System), 5.
Georgia--2.5%				Georgia Municipal Electric Authority, Power
	A+	A2	4,600	Series W, 6.60% due 1/01/2018
	A	A2	250	Series W, 6.60% due 1/01/2018 (e)
	A	A2	250	Series Y, 10% due 1/01/2010 (e)
				Milledgeville-Baldwin County, Georgia, Deve Revenue Bonds (Georgia College and State Un
	BBB	NR*	1,250	5.50% due 9/01/2024
	BBB	NR*	2,000	5.625% due 9/01/2030
	A	A3	4,785	Monroe County, Georgia, Development Authori (Oglethorpe Power Corporation--Scherer), Se due 1/01/2011
Idaho--0.2%	NR*	Aaa	1,145	Idaho Housing Agency, S/F Mortgage Revenue Series E-2, 6.90% due 1/01/2027
Illinois--19.7%	AAA	Aaa	3,005	Chicago, Illinois, GO (Neighborhoods Alive 6% due 1/01/2016 (f)
	AAA	Aaa	5,000	Chicago, Illinois, O'Hare International Air Revenue Refunding Bonds, Third Lien, AMT, S due 1/01/2019 (c)
				Chicago, Illinois, O'Hare International Air
	AAA	Aaa	11,200	3rd Lien, Series B-2, 6% due 1/01/202
	AAA	NR*	8,540	Series 368, DRIVERS, 9.338% due 7/01/
	AAA	NR*	7,000	Chicago, Illinois, O'Hare International Air Bonds, DRIVERS, AMT, Series 253, 9.854% due
	AAA	Aaa	135	Chicago, Illinois, S/F Mortgage Revenue Bon due 3/01/2032 (b)(d)(l)
	AAA	Aaa	5,000	Cook County, Illinois, Community High Schoo Niles Township, GO, 6% due 12/01/2017 (f)
	BBB	Baa1	10,000	Hodgkins, Illinois, Environmental Improveme Biosolids Management LLC Project), AMT, 6%
	BBB	NR*	2,140	Illinois Development Finance Authority Reve Rehabilitation Providers Facility), Series
	BBB	NR*	1,365	Illinois Development Finance Authority, Rev (Community Rehabilitation Providers), Serie
	A+	A1	6,040	Illinois HDA, Revenue Refunding Bonds (M/F 6.75% due 9/01/2023
	AA+	Aa2	5,500	Illinois State Finance Authority Revenue Bo Memorial Hospital), Series A, 5.50% due 8/1
	NR*	Aaa	2,500	Kane, Cook and Du Page Counties, Illinois, Elgin, GO, 6.375% due 1/01/2019 (i)
	NR*	Aaa	5,245	Kane and De Kalb Counties, Illinois, Commun Number 302, GO, DRIVERS, Series 283, 9.885%
				Mc Lean and Woodford Counties, Illinois, Co District Number 005, GO, Refunding (i):
	NR*	Aaa	5,000	6.25% due 12/01/2014
	NR*	Aaa	4,000	6.375% due 12/01/2016
	AAA	NR*	18,550	Metropolitan Pier and Exposition Authority, State Tax Revenue Refunding Bonds, DRIVERS, due 6/15/2023 (c)(f)(j)
				Regional Transportation Authority, Illinois
	AAA	Aaa	3,500	Series A, 7.20% due 11/01/2020 (h)
	AAA	Aaa	4,000	Series C, 7.75% due 6/01/2020 (f)
	AAA	Aaa	3,000	Will County, Illinois, Environmental Revenu Refining Corporation Project), AMT, 6.40% d
				Will County, Illinois, School District Numb

				Elementary), GO, Series A (i):
	NR*	Aaa	55	6.50% due 11/01/2010 (a)
	NR*	Aaa	945	6.50% due 11/01/2013
	NR*	Aaa	1,375	6.50% due 11/01/2015

[LOGO] Merrill Lynch Investment Managers

Schedule of Investments (continued) (in Thousands)

State	S&P Ratings+	Moody's Ratings+	Face Amount	Municipal Bonds
Indiana--6.9%	BBB	Baa1	$ 1,700	Fort Wayne, Indiana, PCR, Refunding (Genera Project), 6.20% due 10/15/2025
	AA-	A1	6,500	Indiana Health Facility Financing Authority Refunding Bonds (Clarian Health Partners In due 2/15/2021
	NR*	Aaa	4,290	Indiana State, HFA, S/F Mortgage Revenue Re 6.80% due 1/01/2017 (k)
	AA-	NR*	8,195	Indiana Transportation Finance Authority, H Series A, 6.80% due 12/01/2016
	AA	NR*	15,335	Indianapolis, Indiana, Local Public Improve Refunding Bonds, Series D, 6.75% due 2/01/2
Kansas--0.7%	NR*	Aaa	3,805	Sedgwick and Shawnee Counties, Kansas, S/F (Mortgage Backed Securities Program), AMT, due 12/01/2033 (b)(d)
Louisiana--2.7%	BBB	Baa2	4,000	De Soto Parish, Louisiana, Environmental Im Refunding Bonds (International Paper Co. Pr 6.55% due 4/01/2019
	AAA	Aaa	10,575	Louisiana Local Government, Environmental F Development Authority Revenue Bonds (Capita Acquisition), Series A, 6.30% due 7/01/2030
Maine--0.3%				Portland, Maine, Housing Development Corpor Revenue Bonds (Avesta Housing Development C Series A:
	NR*	Baa2	775	5.70% due 8/01/2021
	NR*	Baa2	1,190	6% due 2/01/2034
Massachusetts--7.8%	AAA	Aaa	2,035	Boston, Massachusetts, Water and Sewer Comm 9.25% due 1/01/2011 (e)
	AA	Aa2	3,010	Massachusetts Bay Transportation Authority, (General Transportation System), Series A,
	AA	Aa3	30,000	Massachusetts State Water Resource Authorit Series A, 6.50% due 7/15/2019
				Massachusetts State Water Resource Authorit Bonds, Series A (f):
	AAA	Aaa	1,000	6% due 8/01/2014
	AAA	Aaa	2,480	6% due 8/01/2017
Michigan--3.7%	BBB	Baa2	7,695	Delta County, Michigan, Economic Developmen Environmental Improvement Revenue Refunding

Schedule of Investments (continued) (in Thousands)

				Westvaco-Escanaba), Series A, 6.25% due 4/1
				Macomb County, Michigan, Hospital Finance A
				Revenue Bonds (Mount Clemens General Hospit
	BBB-	NR*	3,715	5.75% due 11/15/2025
	BBB-	NR*	5,250	5.875% due 11/15/2034
				Michigan State Hospital Finance Authority,
	AAA	Aa2	390	(Ascension Health Credit), Series A,
	AAA	Aaa	3,000	(Ascension Health Credit), Series A, 11/15/2009 (a)(c)
	B	Ba1	1,300	(Detroit Medical Center Obligation Gr due 8/15/2013
	NR*	Ba3	1,000	(Sinai Hospital), 6.70% due 1/01/2026
Minnesota--1.5%	NR*	A3	7,235	Minneapolis, Minnesota, Health Care System Health System), Series A, 5.75% due 11/15/2
	NR*	Aaa	1,405	Saint Cloud, Minnesota, Health Care Revenue Cloud Hospital Obligation Group), Series A,
Mississippi--4.8%				Lowndes County, Mississippi, Solid Waste Di (Weyerhaeuser Company Project):
	BBB	Baa2	3,650	Series A, 6.80% due 4/01/2022
	BBB	Baa2	4,000	Series B, 6.70% due 4/01/2022
	BBB-	Ba1	20,705	Mississippi Business Finance Corporation, M Refunding (System Energy Resources Inc. Pro due 4/01/2022
Missouri--0.5%	BBB+	Baa1	2,600	Missouri State Development Finance Board, I Revenue Refunding Bonds (Branson), Series A
	AAA	NR*	450	Missouri State Housing Development Commissi Bonds (Homeowner Loan), AMT, Series A, 7.50
Montana--1.0%	BBB+	Baa2	6,000	Forsyth, Montana, PCR, Refunding (Portland Company), Series A, 5.20% due 5/01/2033
Nebraska--0.2%	AAA	NR*	960	Nebraska Investment Finance Authority, S/F AMT, Series C, 6.30% due 9/01/2028 (b)(d)(l

State	S&P Ratings+	Moody's Ratings+	Face Amount	Municipal Bonds
Nevada--2.4%	AAA	Aaa	$ 6,700	Clark County, Nevada, IDR (Power Company Pr 6.70% due 6/01/2022 (f)
	AA	Aa2	1,600	Clark County, Nevada, Public Safety, GO, 6%
				Nevada Housing Division Revenue Bonds, Mult
	AAA	NR*	3,475	(Arville Electric Project), AMT, 6.60
	AAA	Aa2	1,235	Issue B, 7.45% due 10/01/2017
				Nevada Housing Division Revenue Bonds, (S/F
	AAA	Aaa	445	Senior Series E, 7% due 10/01/2019
	NR*	Aa2	225	Series A, 6.55% due 10/01/2012
New Hampshire--0.4%	BBB+	Baa1	2,425	New Hampshire Health and Education Faciliti Refunding Bonds (Elliot Hospital), Series B

New Jersey--1.7%	AAA	Aaa	800	New Jersey State Housing and Mortgage Finan Revenue Bonds, AMT, Series M, 6.95% due 10/
	BBB	Baa3	10,230	Tobacco Settlement Financing Corporation of Bonds, 7% due 6/01/2041
New Mexico--0.5%	BBB-	Baa2	3,300	Farmington, New Mexico, PCR, Refunding (Pub Juan Project), Series A, 5.80% due 4/01/202
New York--9.2%	NR*	Aa2	7,875	New York City, New York, City Transitional Bonds, RIB, Series 283, 10.88% due 11/15/20
				New York City, New York, GO:
	A	A2	7,150	Series F, 5.25% due 1/15/2033
	AAA	A2	520	Series I, 6.25% due 4/15/2007 (a)(m)
	AAA	Aaa	380	Series I, 6.25% due 4/15/2017 (m)
	AAA	A2	1,680	Series I, 6.25% due 4/15/2017 (a)(m)
	AAA	Aaa	630	Series I, 6.25% due 4/15/2027 (m)
	A	A2	5,110	Sub-Series C-1, 5.25% due 8/15/2026
	A	A2	3,410	Sub-Series C-1, 5.10% due 8/15/2027
				New York City, New York, GO, Refunding, Ser
	AAA	A2	4,550	6.375% due 5/15/2010 (a)
	AAA	A2	3,450	6.375% due 5/15/2014
				New York State Dormitory Authority, Revenue
	BB	Ba1	1,000	(Mount Sinai Health), Series A, 6.50%
	AAA	NR*	11,875	RIB, Series 305, 10.38% due 5/15/2015
Oregon--1.1%	NR*	Aaa	2,000	Portland, Oregon, Airport Way, Urban Renewa Allocation Refunding Bonds, Series A, 6% du
	NR*	Aaa	3,305	Portland, Oregon, Sewer System Revenue Bond due 8/01/2020 (f)(j)
Pennsylvania--4.2%	AAA	Aaa	2,440	Pennsylvania State Higher Education Assista Capital Acquisition, 6.125% due 12/15/2010
	A	NR*	6,250	Pennsylvania State Higher Educational Facil Bonds (University of Pennsylvania Medical C Series A, 6% due 1/15/2031
				Philadelphia, Pennsylvania, Authority for I Senior Living Revenue Bonds:
	NR*	Baa2	1,000	(Arbor House Inc. Project), Series E,
	NR*	Baa2	1,355	(Rieder House Project), Series A, 6.1
	A-	NR*	9,280	Sayre, Pennsylvania, Health Care Facilities (Guthrie Health Issue), Series B, 7.125% du
				Sayre, Pennsylvania, Health Care Facilities Refunding Bonds (Guthrie Healthcare System)
	A-	NR*	1,750	6.25% due 12/01/2018
	A-	NR*	1,000	5.75% due 12/01/2021
South Carolina--1.6%	BBB+	Baa2	2,450	Medical University, South Carolina, Hospita Facility Revenue Refunding Bonds, 6.50% due
	BBB	Baa2	5,000	Richland County, South Carolina, Environmen Refunding Bonds (International Paper), AMT,
	B-	B1	2,000	York County, South Carolina, Industrial Rev Celanese Corporation), AMT, 5.70% due 1/01/
Tennessee--1.5%	BB	Ba2	2,000	McMinn County, Tennessee, IDB, Solid Waste Facility--Calhoun Newsprint), AMT, 7.40% du
	A-	A3	6,500	Shelby County, Tennessee, Health, Education Board, Hospital Revenue Refunding Bonds (Me 6.50% due 9/01/2026

[LOGO] Merrill Lynch Investment Managers

Schedule of Investments (continued) (in Thousands)

State	S&P Ratings+	Moody's Ratings+	Face Amount	Municipal Bonds
Texas--19.6%				Austin, Texas, Convention Center Revenue Bo Enterprises Inc.), First Tier, Series A:
	BBB-	Baa3	$ 6,000	6.70% due 1/01/2028
	BBB-	Baa3	1,290	6.70% due 1/01/2032
				Brazos River Authority, Texas, PCR, Refundi
	BBB	Baa2	3,000	(Texas Utilities Electric Company Pro due 5/01/2029
	BBB	Baa2	3,055	(Texas Utility Company), Series A, 7.
	BBB	Baa2	12,300	(Utilities Electric Company), Series
	A-	A3	11,460	Brazos River, Texas, Harbor Navigation Dist Environmental Revenue Refunding Bonds (Dow Project), AMT, Series A-7, 6.625% due 5/15/
	AA	NR*	3,000	Gregg County, Texas, Health Facilities Deve Hospital Revenue Bonds (Good Shepherd Medic 6.875% due 10/01/2020 (g)
	AA-	Aa3	10,250	Guadalupe-Blanco River Authority, Texas, Se Disposal Facility Revenue Bonds (E. I. du P Company Project), AMT, 6.40% due 4/01/2026
	BBB	Baa2	4,000	Gulf Coast, Texas, IDA (Champion Internatio 7.125% due 4/01/2010
	BBB	Baa2	3,000	Gulf Coast, Texas, Waste Disposal Authority (International Paper Company), AMT, Series
	AAA	Aaa	5,500	Harris County, Houston, Texas, Sports Autho Bonds, Senior Lien, Series G, 5.75% due 7/1
	NR*	Aa3	10,385	Harris County, Texas, Health Facilities Dev Revenue Refunding Bonds, RITR, Series 6, 9.
	NR*	Baa3	1,800	Houston, Texas, Industrial Development Corp (Air Cargo), AMT, 6.375% due 1/01/2023
	AAA	Aaa	2,030	Mansfield, Texas, Independent School Distri 6.625% due 2/15/2015
	BBB	Baa2	9,855	Matagorda County, Texas, Navigation Distric Refunding Bonds (Centerpoint Energy Project
	NR*	Aaa	5,225	Midway, Texas, Independent School District, due 8/15/2014
	B-	Ba3	5,400	Port Corpus Christi, Texas, Revenue Refundi Project), Series A, 6.45% due 11/01/2030
	B-	Ba3	5,000	Red River Authority, Texas, PCR, Refunding Series B, 6.70% due 11/01/2030
	NR*	Aa1	6,250	San Antonio, Texas, Electric and Gas Revenu Series 469x, 9.91% due 2/01/2014 (j)
Vermont--0.2%	BBB+	NR*	1,000	Vermont Educational and Health Buildings Fi Developmental and Mental Health Revenue Bon Human Services), Series A, 6.375% due 6/15/
Virginia--1.1%	BBB+	A3	1,425	Chesterfield County, Virginia, IDA, PCR (Vi Company), Series A, 5.875% due 6/01/2017
	BBB	Baa2	1,500	Isle of Wight County, Virginia, IDA, Solid Revenue Bonds (Union Camp Corporation Proje

				due 4/01/2024
	AAA	Aaa	3,320	Virginia State, HDA, Commonwealth Mortgage Sub-Series J-1, 5.20% due 7/01/2019 (c)
Washington--8.6%				Energy Northwest, Washington, Electric Reve DRIVERS (j):
	AAA	NR*	5,330	Series 248, 9.885% due 7/01/2018 (c)
	AAA	NR*	3,510	Series 255, 10.38% due 7/01/2018 (h)
	AAA	NR*	7,350	Series 256, 10.384% due 7/01/2017 (c)
	NR*	NR*	2,460	Seattle, Washington, Housing Authority Reve Housing Project), 6.125% due 12/01/2032
	AAA	Aaa	8,100	Washington State, GO, Trust Receipts, Class due 1/01/2014 (i)(j)
	AA-	Aa1	14,320	Washington State Public Power Supply System (Nuclear Project Number 1), Series B, 7.125
Wisconsin--2.6%	BBB	Baa3	4,505	Badger Tobacco Asset Securitization Corpora Asset-Backed Revenue Bonds, 6.125% due 6/01
	NR*	Baa3	1,770	Milwaukee, Wisconsin, Revenue Bonds (Air Ca due 1/01/2025
	NR*	Aa2	5,000	Wisconsin State Health and Educational Faci Mortgage Revenue Bonds (Hudson Memorial Hos due 1/15/2029 (k)
	BBB+	NR*	4,540	Wisconsin State Health and Educational Faci Bonds (Synergyhealth Inc.), 6% due 11/15/20

Schedule of Investments (concluded) (in Thousands)

State	S&P Ratings+	Moody's Ratings+	Face Amount	Municipal Bonds
Wyoming--2.2%				Sweetwater County, Wyoming, Solid Waste Dis Corporation Project), AMT:
	BB+	Ba3	$ 5,425	Series A, 7% due 6/01/2024
	BB+	Ba3	7,475	Series B, 6.90% due 9/01/2024
Virgin Islands--1.4%	BBB-	Baa3	8,000	Virgin Islands Government Refinery Faciliti Bonds (Hovensa Coker Project), AMT, 6.50% d
				Total Municipal Bonds (Cost--$836,666)--148

Shares Held	Short-Term Securities
37,658	Merrill Lynch Institutional Tax-Exempt Fund
	Total Short-Term Securities (Cost--$37,658)

Total Investments (Cost--$874,324**)--154.9%

Other Assets Less Liabilities--0.0%

Preferred Stock, at Redemption Value--(54.9%)

Net Assets Applicable to Common Stock--100.0%

* Not Rated.

** The cost and unrealized appreciation/depreciation of investments as of August 31, 2004, as computed for federal income tax purposes, were as follows:

	(in Thousands)
Aggregate cost	$874,336
Gross unrealized appreciation	$ 68,939
Gross unrealized depreciation	(1,688)
Net unrealized appreciation	$ 67,251

+ Ratings shown are unaudited.

(a) Prerefunded.

(b) FNMA Collateralized.

(c) MBIA Insured.

(d) GNMA Collateralized.

(e) Escrowed to maturity.

(f) FGIC Insured.

(g) Radian Insured.

(h) AMBAC Insured.

(i) FSA Insured.

(j) The interest rate is subject to change periodically and inversely based upon prevailing market rates. The interest rate shown is the rate in effect at August 31, 2004.

(k) FHA Insured.

(l) FHLMC Collateralized.

(m) XL Capital Insured.

(n) Investments in companies considered to be an affiliate of the Fund (such companies are defined as "Affiliated Companies" in Section 2 (a)(3) of the Investment Company Act of 1940) were as follows:

(in Thousands)

Affiliate	Net Activity	Dividend Income
Merrill Lynch Institutional Tax-Exempt Fund	14,300	$190

Forward interest rate swaps as of August 31, 2004 were as follows:

(in Thousands)

	Notional Amount	Unrealized Depreciation
Receive a variable rate equal to 7-Day Bond Market Association Municipal Swap Index Rate and pay a fixed rate of 3.885%		

Broker, J.P. Morgan Chase Bank Expires October 2014	$43,500	$(1,359)
Receive a variable rate equal to 7-Day Bond Market Association Municipal Swap Index Rate and pay a fixed rate of 3.671%		
Broker, J.P. Morgan Chase Bank Expires November 2014	$20,200	(228)
Total		$(1,587)

See Notes to Financial Statements.

[LOGO] Merrill Lynch Investment Managers

Statement of Net Assets

As of August 31, 2004

Assets

Investments in unaffiliated securities, at value (identified cost--$836,665,90
Investments in affiliated securities, at value (identified cost--$37,657,683)
Cash ...
Receivables:
- Interest ...
- Securities sold ...
- Dividends from affiliates ...

Prepaid expenses ...

Total assets ...

Liabilities

Unrealized depreciation on forward interest rate swaps ...
Payables:
- Securities purchased ...
- Dividends to Common Stock shareholders ...
- Offering cost ...
- 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* 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 (61,346,288 shares issued and outstanding) ....
Paid-in capital in excess of par ....
Undistributed investment income--net ....
Accumulated realized capital losses--net ....
Unrealized appreciation--net ....

Total accumulated earnings--net ....

Total--Equivalent to $9.91 net asset value per share of Common Stock (market price--$9.30) ....

* Auction Market Preferred Stock.

See Notes to Financial Statements.

Statement of Operations

For the Year Ended August 31, 2004

Investment Income

Interest ....
Dividends from affiliates ....

Total income ....

Expenses

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 income--net ....

==
Realized & Unrealized Gain (Loss)--Net

Realized gain (loss) on:
Investments--net ....
Forward interest rate swaps--net ....

Change in unrealized appreciation/depreciation on:
Investments--net ....
Forward interest rate swaps--net ....

Total realized and unrealized gain--net ....

==
Dividends to Preferred Stock Shareholders

Investment income--net ....

Net Increase in Net Assets Resulting from Operations ....

See Notes to Financial Statements.

[LOGO] Merrill Lynch Investment Managers

Statements of Changes in Net Assets

Increase (Decrease) in Net Assets:
==
Operations

Investment income--net ....
Realized gain--net ....
Change in unrealized appreciation/depreciation--net ....
Dividends to Preferred Stock Shareholders ....

Net increase in net assets resulting from operations ....

==
Dividends to Common Stock Shareholders

Investment income--net ....

Net decrease in net assets resulting from dividends to Common Stock shareholders ....

Capital Stock Transactions

Offering and underwriting costs resulting from issuance of Preferred Stock ....

Net decrease in net assets resulting from capital stock transactions ....

Net Assets Applicable to Common Stock

Total increase (decrease) in net assets applicable to Common Stock ....
Beginning of year ....

End of year* ....

* Undistributed investment income--net ....

See Notes to Financial Statements.

Financial Highlights

The following per share data and ratios have been derived from information provided in the financial statements.

Increase (Decrease) in Net Asset Value:	For the Ye 2004	2003
Per Share Operating Performance		
Net asset value, beginning of year	$ 9.54	$ 9.76
Investment income--net	.72+	.72+
Realized and unrealized gain (loss)--net	.36	(.26)
Dividends to Preferred Stock shareholders from investment income--net	(.04)	(.05)
Total from investment operations	1.04	.41
Less dividends to Common Stock shareholders from investment income--net	(.66)	(.63)
Offering costs resulting from the issuance of Preferred Stock	(.01)	--
Net asset value, end of year	$ 9.91	$ 9.54
Market price per share, end of year	$ 9.30	$ 8.80

Total Investment Return*		
Based on market price per share	13.53%	3.56%
Based on net asset value per share	11.60%	4.79%
Ratios Based on Average Net Assets of Common Stock		
Total expenses, net of reimbursement**	.94%	.95%
Total expenses**	.95%	.96%
Total investment income--net**	7.37%	7.33%
Amount of dividends to Preferred Stock shareholders	.43%	.50%
Investment income--net, to Common Stock shareholders	6.94%	6.83%

[LOGO] Merrill Lynch Investment Managers

Financial Highlights (concluded)

The following per share data and ratios have been derived from information provided in the financial statements.	For the	
	2004	2003
Ratios Based on Average Net Assets of Common & Preferred Stock**		
Total expenses, net of reimbursement	.65%	.65%
Total expenses	.65%	.66%
Total investment income--net	5.06%	5.03%
Ratios Based on Average Net Assets of Preferred Stock		
Dividends to Preferred Stock shareholders	.95%	1.11%
Supplemental Data		
Net assets applicable to Common Stock, end of year (in thousands)	$607,842	$585,022
Preferred Stock outstanding, end of year (in thousands)	$334,000	$275,000
Portfolio turnover	45.33%	44.30%

Leverage

Asset coverage per $1,000	$ 2,820	$ 3,127

Dividends Per Share on Preferred Stock Outstanding

Series A--Investment income--net	$ 244	$ 266
Series B--Investment income--net	$ 238	$ 278
Series C--Investment income--net	$ 239	$ 269
Series D--Investment income--net	$ 242	$ 306
Series E--Investment income--net	$ 229	$ 269
Series F***--Investment income--net	--	--

* 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 charges.

** Do not reflect the effect of dividends to Preferred Stock shareholders.

*** Series F was issued on August 31, 2004.

\+ Based on average shares outstanding.

++ Certain prior year amounts have been reclassified to conform with current year presentation.

See Notes to Financial Statements.

Notes to Financial Statements

1. Significant Accounting Policies:

MuniVest Fund, Inc. (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 is 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 markets and are valued at the last available bid price in the over-the-counter 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 will be 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 over-the-counter 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 from the counterparty. 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 futures contracts. 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.

- 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.

(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) 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.

(e) Dividends and distributions -- Dividends from net investment income are declared and paid monthly. Distributions of capital gains are recorded on the ex-dividend dates.

(f) Offering costs -- Direct expenses relating to the public offering of the Fund's Preferred Stock were charged to capital at the time of issuance of the shares.

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. ("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 waive 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, 2004, FAM reimbursed the Fund in the amount of $44,299.

For the year ended August 31, 2004, Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S"), an affiliate of FAM, received underwriting fees of $590,000 in connection with issuance of the Fund's Preferred Stock.

For the year ended August 31, 2004, the Fund reimbursed FAM $17,078 for certain accounting services.

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, 2004, were $429,923,492 and $385,909,717, respectively.

4. Capital Stock Transactions:

Common Stock

At August 31, 2004, the Fund had one class of shares of Common Stock, par value $.10 per share, of which 150,000,000 shares were authorized.

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, 2004 were as follows: Series A, 1.158%; Series B, 1.20%; Series C, 1.30%; Series D, 1.20%; Series E, 1.15% and Series F, 1.20%.

Shares issued and outstanding for the year ended August 31, 2004 increased by 2,360 shares from the issuance of an additional series of Preferred Stock.

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, 2004, MLPF&S received $272,251 as commissions.

Notes to Financial Statements (concluded)

5. Distributions to Shareholders:

The Fund paid a tax-exempt income dividend to holders of Common Stock in the amount of $.056000 per share on September 29, 2004 to shareholders of record on September 14, 2004.

The tax character of distributions paid during the fiscal years ended August 31, 2004 and August 31, 2003 was as follows:

	8/31/2004	8/31/2003
Distributions paid from:		
Tax-exempt income	$42,917,361	$41,631,405
Total distributions	$42,917,361	$41,631,405

As of August 31, 2004, the components of accumulated earnings on a tax basis were as follows:

Undistributed tax-exempt income--net	$ 10,571,192
Undistributed long-term capital gains--net	--
Total undistributed earnings--net	10,571,192
Capital loss carryforward	(25,239,493)*
Unrealized gains--net	51,917,407**
Total accumulated earnings--net	$ 37,249,106

* On August 31, 2004, the Fund had a net capital loss carryforward of $25,239,493, of which $7,559,610 expires in 2008 and $17,679,883 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, the tax deferral of losses on straddles, and the difference between book and tax amortization methods for premiums and discounts on fixed income securities.

[LOGO] Merrill Lynch Investment Managers

Report of Independent Registered Public Accounting Firm

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

We have audited the accompanying statement of net assets, including the schedule of investments, of MuniVest Fund, Inc. as of August 31, 2004, 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. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Our procedures included confirmation of securities owned as of August 31, 2004, by correspondence with the custodian and brokers; where replies were not received from brokers, we performed other auditing procedures. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. 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 MuniVest Fund, Inc. as of August 31, 2004, 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 15, 2004

Quality Profile (unaudited)

The quality ratings of securities in the Fund as of August 31, 2004 were as follows:

S&P Rating/Moody's Rating	Percent of Total Investments
AAA/Aaa	32.5%
AA/Aa	15.9
A/A	21.3

BBB/Baa	21.8
BB/Ba	4.0
B/B	0.2
NR (Not Rated)	0.3
Other*	4.0

* Includes portfolio holdings in short-term investments.

[LOGO] Merrill Lynch Investment Managers

Automatic Dividend Reinvestment Plan

The following description of the Fund's Automatic Dividend Reinvestment Plan (the "Plan") is sent to you annually as required by federal securities laws.

Pursuant to the Fund's Plan, unless a holder of Common Stock otherwise elects, all dividend and capital gains distributions will be automatically reinvested by The Bank of New York (the "Plan Agent"), as agent for shareholders in administering the Plan, in additional shares of Common Stock of the Fund. Holders of Common Stock who elect not to participate in the Plan will receive all distributions in cash paid by check mailed directly to the shareholder of record (or, if the shares are held in street or other nominee name then to such nominee) by The Bank of New York, as dividend paying agent. Such participants may elect not to participate in the Plan and to receive all distributions of dividends and capital gains in cash by sending written instructions to The Bank of New York, as dividend paying agent, at the address set forth below. Participation in the Plan is completely voluntary and may be terminated or resumed at any time without penalty by written notice if received by the Plan Agent not less than ten days prior to any dividend record date; otherwise such termination will be effective with respect to any subsequently declared dividend or distribution.

Whenever the Fund declares an income dividend or capital gains distribution (collectively referred to as "dividends") payable either in shares or in cash, non-participants in the Plan will receive cash and participants in the Plan will receive the equivalent in shares of Common Stock. The shares will be acquired by the Plan Agent for the participant's account, depending upon the circumstances described below, either (i) through receipt of additional unissued but authorized shares of Common Stock from the Fund ("newly issued shares") or (ii) by purchase of outstanding shares of Common Stock on the open market ("open-market purchases") on the American Stock Exchange or elsewhere. If on the payment date for the dividend, the net asset value per share of the Common Stock is equal to or less than the market price per share of the Common Stock plus estimated brokerage commissions (such conditions being referred to herein as "market premium"), the Plan Agent will invest the dividend amount in newly issued shares on behalf of the participant. The number of newly issued shares of Common Stock to be credited to the participant's account will be determined by dividing the dollar amount of the dividend by the net asset value per share on the date the shares are issued, provided that the maximum discount from the then current market price per share on the date of issuance may not exceed 5%. If on the dividend payment date the net asset value per share is greater than the market value (such condition being referred to herein as "market discount"), the Plan Agent will invest the dividend amount in shares acquired on behalf of the participant in open-market purchases.

In the event of a market discount on the dividend payment date, the Plan Agent will have until the last business day before the next date on which the shares trade on an "ex-dividend" basis or in no event more than 30 days after the dividend payment date (the "last purchase date") to invest the dividend amount in shares acquired in open-market purchases. It is contemplated that the Fund will pay monthly income dividends. Therefore, the period during which open-market purchases can be made will exist only from the payment date on the dividend through the date before the next "ex-dividend" date, which typically will be approximately 10 days. If, before the Plan Agent has completed its open-market purchases, the market price of a share of Common Stock exceeds the net asset value per share, the average per share purchase price paid by the Plan Agent may exceed the net asset value of the Fund's shares, resulting in the acquisitions of fewer shares than if the dividend had been paid in newly issued shares on the dividend payment date. Because of the foregoing difficulty with respect to open-market purchases, the Plan provides that if the Plan Agent is unable to invest the full dividend amount in open-market purchases during the purchase period or if the market discount shifts to a market premium during the purchase period, the Plan Agent will cease making open-market purchases and will invest the uninvested portion of the dividend amount in newly issued shares at the close of business on the last purchase date determined by dividing the uninvested portion of the dividend by the net asset value per share.

The Plan Agent maintains all shareholders' accounts in the Plan and furnishes written confirmation of all transactions in the account, including information needed by shareholders for tax records. Shares in the account of each Plan participant will be held by the Plan Agent in non-certificated form in the name of the participant, and each shareholder's proxy will include those shares purchased or received pursuant to the Plan. The Plan Agent will forward all proxy solicitation materials to participants and vote proxies for shares held pursuant to the Plan in accordance with the instructions of the participants.

In the case of shareholders such as banks, brokers or nominees which hold shares of others who are the beneficial owners, the Plan Agent will administer the Plan on the basis of the number of shares certified from time to time by the record shareholders as representing the total amount registered in the record shareholder's name and held for the account of beneficial owners who are to participate in the Plan.

There will be no brokerage charges with respect to shares issued directly by the Fund as a result of dividends or capital gains distributions payable either in shares or in cash. However, each participant will pay a pro rata share of brokerage commissions incurred with respect to the Plan Agent's open-market purchases in connection with the reinvestment of dividends.

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.

Shareholders participating in the Plan may receive benefits not available to shareholders not participating in the Plan. 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 at less than they could otherwise purchase them and will have shares with a cash value greater than the value of any cash distribution they would have received on their shares. If the market price plus commissions is below the net asset value, participants will receive distributions in shares with a net asset value greater than the value of any cash distribution they would have received on their shares. However, there may be insufficient 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.

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 premium over net asset value, 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 such discount (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.

Experience under the Plan may indicate that changes are desirable. Accordingly, the Fund reserves the right to amend or terminate the Plan. There is no direct service charge to participants in the Plan; however, the Fund reserves the right to amend the Plan to include a service charge payable by the participants.

All correspondence concerning 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.

[LOGO] Merrill Lynch Investment Managers

Officers and Directors (unaudited)

Name	Address & Age	Position(s) Held with Fund	Length of Time Served	Principal Occupation(s) During Past 5 Years
Interested Director				
Terry K. Glenn*	P.O. Box 9011 Princeton, NJ 08543-9011 Age: 63	President and Director	1999 to present	President of the Merrill Lynch Investment Manage L.P. ("MLIM")/Fund Asset Management, L.P. ("FAM")--Advised Funds since 1999; Chairman (Americas Region) of MLIM from 2000 to 2002; Executive Vice President of MLIM and FAM (which terms as used herein include their corporate predecessors) from 1983 to 2002; President of FAM Distributors, Inc. ("FAMD") from 1986 to 200 and Director thereof from 1991 to 2002; Executiv Vice President and Director of Princeton Service Inc. ("Princeton Services") from 1993 to 2002; President of Princeton Administrators, L.P. from 1989 to 2002; Director of Financial Data Service Inc. since 1985.

* Mr. Glenn is a director, trustee or member of an advisory board of certain other in or FAM acts as investment adviser. Mr. Glenn is an "interested person," as describe the Fund based on his present and former positions with MLIM, FAM, FAMD, Princeton Administrators, L.P. The Director's term is unlimited. Directors serve until their until December 31 of the year in which they turn 72. As Fund President, Mr. Glenn s

of Directors.

Independent Directors*				
Ronald W. Forbes	P.O. Box 9095 Princeton, NJ 08543-9095 Age: 63	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; Interna tional Consultant, Urban Institute, Washington, from 1995 to 1999.
Cynthia A. Montgomery	P.O. Box 9095 Princeton, NJ 08543-9095 Age: 52	Director	1993 to present	Professor, Harvard Business School since 1989; Associate Professor, J.L. Kellogg Graduate Schoo Management, Northwestern University from 1985 to 1989; Associate Professor, Graduate School of Business Administration, University of Michigan 1979 to 1985.
Jean Margo Reid	P.O. Box 9095 Princeton, NJ 08543-9095 Age: 59	Director	2004 to present	Self-employed consultant since 2001; Counsel of Alliance Capital Management (investment adviser) in 2000; General Counsel, Director and Secretary Sanford C. Bernstein & Co., Inc. (investment adv broker-dealer) from 1997 to 2000; Secretary, Sanford C. Bernstein Fund, Inc. from 1994 to 200 Director and Secretary of SCB, Inc. since 1998; Director and Secretary of SCB Partners, Inc. sin Director of Covenant House from 2001 to 2004.
Kevin A. Ryan	P.O. Box 9095 Princeton, NJ 08543-9095 Age: 71	Director	1992 to present	Founder and currently Director Emeritus of Bosto University Center for the Advancement of Ethics Character and Director thereof from 1989 to 1999 Professor from 1982 to 1999 and currently Profes Emeritus of Education of Boston University; form taught on the faculties of The University of Chi Stanford University and Ohio State University.
Roscoe S. Suddarth	P.O. Box 9095 Princeton, NJ 08543-9095 Age: 69	Director	2000 to present	President, Middle East Institute from 1995 to 20 Foreign Service Officer, United States Foreign Service from 1961 to 1995; Career Minister from to 1995; Deputy Inspector General, U.S. Departme State from 1991 to 1994; U.S. Ambassador to The Hashemite Kingdom of Jordan from 1987 to 1990.

Officers and Directors (unaudited) (concluded)

Name	Address & Age	Position(s) Held with Fund	Length of Time Served	Principal Occupation(s) During Past 5 Years
Independent Directors* (concluded)				
Richard R.	P.O. Box 9095	Director	1988 to	Professor of Finance since 1984, Dean from

West	Princeton, NJ 08543-9095 Age: 66		present	1984 to 1993 and currently Dean Emeritus of New York University Leonard N. Stern School of Business Administration, New York University fro 1994 to present; Professor of Finance thereof fr 1982 to 1994.
Edward D. Zinbarg	P.O. Box 9095 Princeton, NJ 08543-9095 Age: 69	Director	2000 to present	Self-employed financial consultant since 1994; Executive Vice President of The Prudential Insur Company of America from 1988 to 1994; former Director of Prudential Reinsurance Company and former Trustee of the Prudential Foundation.

* The Director's term is unlimited. Directors serve until their resignation, removal the year in which they turn 72.

Name	Address & Age	Position(s) Held with Fund	Length of Time Served	Principal Occupation(s) During Past 5 Years
Fund Officers*				
Donald C. Burke	P.O. Box 9011 Princeton, NJ 08543-9011 Age: 44	Vice President and Treasurer	1993 to present and 1999 to present	First Vice President of MLIM and FAM since 1997 Senior Vice President, Director and Treasurer of Vice President of FAMD since 1999; Director of M
Kenneth A. Jacob	P.O. Box 9011 Princeton, NJ 08543-9011 Age: 53	Senior Vice President	2002 to present	Managing Director of MLIM since 2000; Director (Management) of MLIM from 1997 to 2000.
John M. Loffredo	P.O. Box 9011 Princeton, NJ 08543-9011 Age: 40	Senior Vice President	2002 to present	Managing Director of MLIM since 2000; Director (Management) of MLIM from 1998 to 2000.
Fred K. Stuebe	P.O. Box 9011 Princeton, NJ 08543-9011 Age: 53	Vice President	1990 to present	Director (Municipal Tax-Exempt Fund Management) of MLIM from 1994 to 2000.
Jeffrey Hiller	P.O. Box 9011 Princeton, NJ 08543-9011 Age: 53	Chief Compliance Officer	2004 to present	Chief Compliance Officer of the MLIM/FAM-advised Chief Compliance Officer of MLIM since 2004; Glo Morgan Stanley Investment Management from 2002 t Global Director of Compliance at Citigroup Asset Chief Compliance Officer at Soros Fund Managemen at Prudential Financial from 1995 to 2000.
Alice A. Pellegrino	P.O. Box 9011 Princeton, NJ 08543-9011 Age: 44	Secretary	2004 to present	Director (Legal Advisory) of MLIM since 2002; Vi 2002; Attorney associated with MLIM since 1997.

* 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
New York, NY 10286

Preferred Stock:

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

AMEX Symbol

MVF

[LOGO] Merrill Lynch Investment Managers

Important Tax Information (unaudited)

All of the net investment income distributions paid by MuniVest Fund, Inc. during the taxable year ended August 31, 2004 qualify as tax-exempt interest dividends for federal income tax purposes.

Please retain this information for your records.

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-Q 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.

Electronic Delivery

The Fund offers electronic delivery of communications to its shareholders. In order to receive this service, you must register your account and provide us with e-mail information. To sign up for this service, simply access this Web site http://www.icsdelivery.com/live and follow the instructions. When you visit this site, you will obtain a personal identification number (PIN). You will need this PIN should you wish to update your e-mail address, choose to discontinue this service and/or make any other changes to the service. This service is not available for certain retirement accounts at this time.

[LOGO] Merrill Lynch Investment Managers www.mlim.ml.com

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-MER-FUND (1-800-637-3863); (2) at www.mutualfunds.ml.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.mutualfunds.ml.com and (2) on the Securities and Exchange Commission's Web site at http://www.sec.gov.

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

#10787 -- 8/04

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 upon request by calling toll-free 1-800-MER-FUND (1-800-637-3863).

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, 2004 - $28,000
Fiscal Year Ending August 31, 2003 - $26,000

(b) Audit-Related Fees - Fiscal Year Ending August 31, 2004 - $3,000
Fiscal Year Ending August 31, 2003 - $5,600

The nature of the services related to compliance for AMPS.

(c) Tax Fees - Fiscal Year Ending August 31, 2004 - $5,610
Fiscal Year Ending August 31, 2003 - $4,800

The nature of the services include tax compliance, tax advice and tax planning.

(d) All Other Fees - Fiscal Year Ending August 31, 2004 - $0
Fiscal Year Ending August 31, 2003 - $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, 2004 - $14,913,836
Fiscal Year Ending August 31, 2003 - $18,318,444

(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) - $945,000, 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
Charles C. Reilly (retired as of December 31, 2003)
Kevin A. Ryan
Roscoe S. Suddarth
Richard R. West
Edward D. Zinbarg

Item 6 - Schedule of Investments - Not Applicable

Item 7 - Disclosure of Proxy Voting Policies and Procedures for Closed-End Management Investment Companies -

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 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:

o 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.

o 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.

o 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.

o 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 - Purchases of Equity Securities by Closed-End Management Investment Company and Affiliated Purchasers - Not Applicable

Item 9 - Submission of Matters to a Vote of Security Holders - Not Applicable

Item 10 - Controls and Procedures

10(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.

10(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 11 - Exhibits attached hereto

11(a)(1) - Code of Ethics - See Item 2

11(a)(2) - Certifications - Attached hereto

11(a)(3) - Not Applicable

11(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.

MuniVest Fund, Inc.

By: /s/ Terry K. Glenn

Terry K. Glenn,
President of
MuniVest Fund, Inc.

Date: October 18, 2004

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/ Terry K. Glenn

Terry K. Glenn,
President of
MuniVest Fund, Inc.

Date: October 18, 2004

By: /s/ Donald C. Burke

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

Date: October 18, 2004