

Kayne Anderson MLP Investment CO

Form N-CSR

February 07, 2008

**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 811-21593
Kayne Anderson MLP Investment Company**

(Exact name of registrant as specified in charter)

1800 Avenue of the Stars, Second Floor, Los Angeles,
California

90067

(Address of principal executive offices)

(Zip code)

David Shladovsky, Esq.

KA Fund Advisors, LLC, 1800 Avenue of the Stars, Second Floor, Los Angeles, California 90067

(Name and address of agent for service)

Registrant's telephone number, including area code: (310) 556-2721

Date of fiscal year end: November 30, 2007

Date of reporting period: November 30, 2007

Form N-CSR is to be used by management investment companies to file reports with the Commission not later than 10 days after the transmission to stockholders of any report that is required to be transmitted to stockholders under Rule 30e-1 under the Investment Company Act of 1940 (17 CFR 270.30e-1). The Commission may use the information provided on Form N-CSR in its regulatory, disclosure review, inspection, and policymaking roles.

A registrant is required to disclose the information specified by Form N-CSR, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-CSR unless the Form displays a currently valid Office of Management and Budget (OMB) control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to Secretary, Securities and Exchange Commission, 450 Fifth Street, NW, Washington, DC 20549-0609. The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. § 3507.

Item 1. Reports to Stockholders.

The report of Kayne Anderson MLP Investment Company (the Registrant) to stockholders for the year ended November 30, 2007 is attached below.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS: This report contains forward-looking statements as defined under the U.S. federal securities laws. Generally, the words believe, expect, intend, estimate, anticipate, project, will and similar expressions identify forward-looking statements, which generally are not historical in nature. Forward-looking statements are subject to certain risks and uncertainties that could cause actual results to materially differ from the Company's historical experience and its present expectations or projections indicated in any forward-looking statements. These risks include, but are not limited to, changes in economic and political conditions; regulatory and legal changes; MLP industry risk; leverage risk; valuation risk; interest rate risk; tax risk; and other risks discussed in the Company's filings with the SEC. You should not place undue reliance on forward-looking statements, which speak only as of the date they are made. The Company undertakes no obligation to update or revise any forward-looking statements made herein. There is no assurance that the Company's investment objectives will be attained.

KAYNE ANDERSON MLP INVESTMENT COMPANY

LETTER TO STOCKHOLDERS

January 25, 2008

Dear Fellow Stockholders:

It was a tumultuous year for the MLP equity market, with the last five months of fiscal 2007 being one of the most difficult markets in recent memory. In contrast, the first seven months of fiscal 2007 showed tremendous strength in the MLP equity market. Volatility in the market has continued in the first quarter of fiscal 2008, largely the result of weak performance of the overall equity market, the turbulence in the credit markets and fears of a recession. In spite of this volatility, we are pleased with our portfolio performance during fiscal 2007. As explained in greater detail later in this letter, we believe that the fundamentals for our underlying portfolio remain quite strong, and we anticipate that these fundamentals will drive improving MLP unit prices as the year progresses.

One of the measures we employ to evaluate our performance is Net Asset Value Return, which is equal to the change in net asset value per share plus the dividends paid during the period being measured, assuming reinvestment in our dividend reinvestment program. During fiscal 2007, our Net Asset Value Return was 10.2%. During this same period, the Citigroup MLP Index (a market capitalization weighted index of 47 energy-related MLPs) had a total return (defined as unit price appreciation plus reinvested distributions) of 10.3%.

Unfortunately, the market turmoil that followed the onset of the credit crisis put pressure on KYN's stock price, as well as stocks of other closed end funds. Our Total Market Return, which is equal to the change in share price plus the dividends paid during the period assuming reinvestment in our dividend reinvestment program was negative 4.4%. As a result, we ended fiscal 2007 with our stock price at a 6.0% discount to NAV compared to an 8.3% premium to NAV at the beginning of the year.

Fiscal 2007 was a very active year both in terms of capital raising and investing. During the year, we made new investments of \$379 million and raised new long-term capital, net of fees and expenses, of approximately \$339 million. We completed fifteen private transactions for a total of \$329 million. While most of these transactions were completed prior to mid-August, we completed two private transactions after mid-August at purchase prices which were at very attractive discounts to the public market price.

As a result of our capital raising activity, as well as the performance of our investments, our long-term investments increased to \$2.2 billion at November 30, 2007 compared to \$1.7 billion at November 30, 2006. Substantially all of these long-term investments were equity securities of MLPs or MLP Affiliates.

Market Overview

During the first seven months of fiscal 2007, the Citigroup MLP Index had a total return of 20.3%. The MLP equity market declined substantially from its peak in mid-July, which resulted in a negative 8.3% total return of the Citigroup MLP Index for the last five months of the fiscal year. In spite of the volatility in stock price performance, operating performance of the underlying portfolio companies was very strong throughout the year. The constituents in the Citigroup MLP Index increased distributions during the fiscal year by a weighted average of 11.3%. The sectors with the strongest distribution growth were the General Partner MLP sector and the Upstream MLP sector, which increased distributions by an average of 23.7% and 20.3%, respectively. During fiscal 2007, 48 of the 68 energy-related MLPs had distribution increases of 5% or more and 30 of those MLPs had distribution increases of greater than 10%.

There are numerous factors that we believe contributed to the decline in the unit prices of MLPs during the last five months of fiscal 2007, but virtually all are related directly or indirectly to credit market woes and declines in broader capital markets. The MLP equity market underperformed the broader equity market during this period, in part because MLPs experienced selling pressure that we believe was the result of multi-strategy hedge funds that liquidated MLP holdings in order to fund margin calls or to rotate into other sectors, as well as selling by retail investors. We also believe that some dedicated MLP funds contributed to the volatility in the sector during this period.

KAYNE ANDERSON MLP INVESTMENT COMPANY

LETTER TO STOCKHOLDERS (CONTINUED)

In spite of the volatility in the MLP equity market, it was a record year for capital raised. Based on public filings, total public equity capital raised during calendar 2007 was \$17.5 billion, which is the highest amount of capital ever raised in this sector. There were fourteen MLP IPOs completed during calendar 2007, raising over \$3.1 billion, including the IPOs of six Midstream MLPs, four Upstream MLPs and three Shipping MLPs. The fourteen IPOs ended the fiscal year at prices that averaged 5.7% above their IPO price. The strongest performing IPOs were the Midstream MLPs, which increased 18.3%, compared to a 5.6% decrease in Upstream MLP IPOs and a 3.5% increase in Shipping MLP IPOs.

The following chart summarizes performance during fiscal 2007 of the various subsectors which comprise the universe of 68 energy-related MLPs:

Category	Total Return
Midstream MLPs	12.3%
Propane MLPs	15.5%
Coal MLPs	20.0%
Shipping MLPs	2.3%
Upstream MLPs	32.0%
General Partner MLPs	24.5%

2008 Outlook

We expect the MLP equity market to continue to face challenges during the first half of 2008, as concerns remain over the impact of a recession, continued credit market woes and the continued need of MLPs to access the market for capital to fund growth.

We believe that third-party acquisition activity will continue to drive distribution growth in 2008, but that third-party acquisition activity will be at a lower level than 2007. We believe that after a short transition period, M&A multiples will decline to reflect the higher cost of capital. As a result, the accretive nature of the acquisitions will remain intact. Continuing a trend we saw in 2007, we think distribution growth will increasingly be driven by drop-down acquisitions (transactions where the general partner sells assets to the MLP) and internal growth projects. There has been a significant increase in the number of announced internal growth projects, which consist of expanding existing assets and constructing new assets. These opportunities typically have much higher expected returns (or lower multiples) than third-party acquisitions. We believe that MLPs will spend more than \$10 billion on drop-down acquisitions and internal growth projects in 2008. As a result, we expect that distribution increases will be consistent with the double digit growth rates experienced in the past three years. While the ability to finance these projects may be more of an issue in 2008 than in 2007, we believe this provides us a greater opportunity to provide financing solutions to MLPs on a privately negotiated basis.

During fiscal 2007, the spread between MLP yields and 10-year U.S. Treasury rates widened from 197 basis points at the beginning of the year to 261 basis points. Spreads have now widened above the five-year average, and we have not seen yields in the MLP sector this high since 2006. With the Federal Reserve reducing the Federal Funds Rate

multiple times in late 2007 and early 2008 and signaling that more rate cuts are possible, we believe that the relatively high average yield offered by MLPs will once again attract yield-oriented investors.

We believe that MLPs, as a group, continue to offer above-average investment appeal with lower-than-average market risk. Current yield plus expected growth appears to well exceed the long-term total return expected by many market strategists for the stock market. As important, most MLPs provide stable and predictable cash flow from hard assets and, by most measures, provide lower risk than other equity investments. We remain confident that the long-term investment case for MLPs is very strong, and believe that the valuation of our portfolio companies will return to historical levels as the year progresses.

KAYNE ANDERSON MLP INVESTMENT COMPANY

LETTER TO STOCKHOLDERS (CONCLUDED)

Fiscal 2007 Financial Highlights

Because the MLPs that we own in our portfolio are treated as partnerships for federal income tax purposes, we only reflected approximately 10% of the cash dividends received in 2007 from our MLP securities as investment income. The remaining 90% of the cash distributions were treated as a return of capital, which increased our realized and unrealized gains by lowering the cost basis of our MLP securities. As a result, we expect on an ongoing basis to report a net investment loss.

Our net investment loss was \$30.0 million (a pre-tax loss of \$43.8 million) in fiscal 2007. This consisted of gross dividends and distributions from MLPs and other energy companies of \$111.2 million, or \$17.5 million of net dividends and distributions after the deduction of \$93.7 million of cash dividends and distributions that were treated as a return of capital. Interest income on repurchase agreements and other investments was \$0.8 million. Expenses were \$62.0 million, including \$29.7 million of investment management fees and \$28.0 million of interest expense. Investment management fees were equal to an annual rate of 1.42% of average total assets (2.32% of average net assets applicable to common stockholders).

Net realized gains during fiscal 2007 were \$42.0 million, consisting of realized gains on investments of \$58.6 million, \$2.7 million of payments to us relating to interest rate swap contracts and \$19.3 million of deferred income tax expense.

Net change in unrealized gains during fiscal year 2007 was \$87.5 million, consisting of unrealized gains on investments \$142.0 million and a decrease in the mark-to-market value of the interest rate swap contracts of \$14.2 million. These net gains were offset by \$40.3 million of deferred income tax expense.

Net increase in net assets resulting from operations was \$99.5 million before dividends to the preferred stockholders of \$4.2 million. Net assets applicable to common stockholders increased from \$28.99 per common share to \$30.08 per common share.

In fiscal 2007, we paid four quarterly dividends to our common stockholders, which totaled \$1.93 per share (95% of this amount was classified as a return of capital). On January 11, 2008, we paid a dividend of \$0.495 per share to stockholders of record on January 4, 2008. The payment of this dividend represents our eleventh quarterly dividend increase and a 32.0% increase from our initial quarterly dividend paid on January 14, 2005. Management intends to continue paying quarterly dividends and expects to increase dividends to the extent permitted by increases in the dividends and distributions from the Company's portfolio.

We look forward to continuing to execute on our business plan of achieving high after-tax total returns by investing in MLPs and other Midstream Energy Companies. We invite you to visit our website at www.kaynefunds.com for the latest updates.

Sincerely,

Kevin S. McCarthy
Chairman of the Board of Directors,

President and Chief Executive Officer

KAYNE ANDERSON MLP INVESTMENT COMPANY

**PORTFOLIO SUMMARY
NOVEMBER 30, 2007
(UNAUDITED)**

Portfolio Investments, by Category

Top 10 Holdings, by Issuer

Holding	Sector	Percent of Total Investments
1. Energy Transfer Partners, L.P.	Midstream MLP	9.1%
2. Enterprise Products Partners L.P.	Midstream MLP	7.5
3. Magellan Midstream Partners, L.P.	Midstream MLP	7.5
4. Plains All American Pipeline, L.P.	Midstream MLP	7.4
5. Kinder Morgan Management, LLC	Midstream MLP	6.7
6. Copano Energy, L.L.C.	Midstream MLP	6.3
7. Crosstex Energy, L.P.	Midstream MLP	4.5
8. Inergy, L.P.	Propane MLP	4.2
9. Enbridge Energy Partners, L.P.	Midstream MLP	3.5
10. MarkWest Energy Partners, L.P.	Midstream MLP	3.3

KAYNE ANDERSON MLP INVESTMENT COMPANY**MANAGEMENT DISCUSSION
FOR THE FISCAL YEAR ENDED NOVEMBER 30, 2007**

This discussion contains forward looking statements and good faith estimates. The reader is referred to the disclosure on such matters at the beginning of this annual report.

Overview

Kayne Anderson MLP Investment Company (the Company) is a non-diversified, closed-end management investment company. The Company's investment objective is to obtain a high after-tax total return by investing at least 85% of its total assets in energy-related master limited partnerships (MLPs) and their affiliates, and in other companies that, as their principal business, operate assets used in the gathering, transporting, processing, storing, refining, distributing, mining or marketing of natural gas, natural gas liquids, crude oil, refined petroleum products or coal (collectively with MLPs, Midstream Energy Companies).

The Company invests principally in equity securities of (i) energy-related MLPs, (ii) owners of such interests in MLPs (MLP Affiliates), and (iii) other Midstream Energy Companies. The Company may, from time to time, invest in debt securities of MLPs and other Midstream Energy Companies. At November 30, 2007, the Company's long-term investments were as follows:

Long-term Investments

Category	Amount (\$ in 000s)	Percentage of Total
Equity		
MLP	\$ 2,073,219	94.3%
MLP Affiliate	119,628	5.4
Other	5,614	0.3
Total	\$ 2,198,461	100.0%

As a limited partner in the MLPs, the Company reports its allocable share of MLP's taxable income in computing its own taxable income. During the year ended November 30, 2007 (fiscal 2007), the Company estimated that taxable income associated with its ownership in MLPs was equal to 10% of the distributions received from such MLPs. As a result, the Company estimated that 90% of the MLP distributions will be treated as a return of capital for tax purposes. For financial reporting purposes, the Company reflects its MLP distributions net of the return of capital portion. As a result, only 10% of the cash distributions from MLPs received during fiscal 2007 are included in investment income. The remaining 90% of distributions from MLPs are reflected as a reduction in the cost basis of the Company's portfolio securities, which has the effect of increasing realized and unrealized gains by that same amount.

Performance Review

One of the measures we employ to evaluate our performance is Net Asset Value Return, which is equal to the change in net asset value per share plus the dividends paid during the period being measured, assuming reinvestment in our

dividend reinvestment program. During fiscal 2007, our Net Asset Value Return was 10.2%. During this same period, the Citigroup MLP Index (a market capitalization weighted index of 47 energy-related MLPs) had a total return (defined as unit price appreciation plus reinvested distributions) of 10.3%. Another measure of the Company's performance is the Market Return, which is equal to the change in share price plus the dividends paid during the period, assuming reinvestment in our dividend reinvestment program. During fiscal 2007, our Market Return was negative 4.4%.

The Company paid four quarterly dividends to its common stockholders during fiscal 2007, totaling \$1.93 per share. On January 11, 2008, the Company paid a quarterly dividend of \$0.495 per share (indicative annual rate of \$1.98 per share). This quarterly dividend rate was 32.0% higher than the Company's initial quarterly rate of \$0.375

KAYNE ANDERSON MLP INVESTMENT COMPANY

MANAGEMENT DISCUSSION (CONTINUED)

and represented the eleventh increase in the Company's dividend rate since inception. Management intends to continue paying quarterly dividends and expects to increase its dividends to the extent permitted by increases in the dividends and distributions from its portfolio. Future dividend increases are subject to, among other things, the operating performance of the Company, realized gains and unrealized gains.

Financial Review

During fiscal 2007, the Company had a net increase in net assets resulting from operations of \$99.5 million before dividends to preferred stockholders of \$4.2 million. The components of this increase are (i) a net investment loss of \$30.0 million (\$43.8 million before taxes), (ii) net realized gains of \$42.0 million (\$61.3 million before taxes) and (iii) net change in unrealized gains of \$87.5 million (\$127.8 million before taxes).

The Company incurred a net investment loss (before taxes) of \$43.8 million during fiscal year 2007. This consisted of net dividends and distributions from MLPs and other Midstream Energy Companies of \$17.5 million, which was after the deduction of \$93.7 million of cash dividends and distributions received by the Company that were treated as a return of capital. Interest income on repurchase agreements and other income was \$0.8 million. Expenses were \$62.0 million, including \$29.7 million of investment management fees and \$28.0 million of interest expense. Investment management fees were equal to an annual rate of 1.42% of average total assets (2.32% of average net assets applicable to common stockholders).

Net realized gains (before taxes) during fiscal 2007 were \$61.3 million, consisting of realized gains on investments of \$58.6 million and \$2.7 million of payments pursuant to interest rate swap contracts. In order to partially hedge itself against rising interest rates, as of November 30, 2007 the Company had entered into interest rate swap contracts with a notional value of \$510 million. Payments made or received pursuant to those swap contracts are not reflected in interest expense, but are reflected as realized gains or losses.

Net change in unrealized gains (before taxes) during fiscal 2007 was \$127.8 million, consisting of unrealized gains on investments of \$142.0 million, offset by a decrease in the mark-to-market value of the interest rate swap contracts of \$14.2 million.

The Company is taxed as a corporation for federal and state income tax purposes. As a result, the Company records income tax expense or benefit based on the investment income (loss) and realized gains. Similarly, the Company records a deferred income tax expense based on the unrealized gains, which are equal to the difference between the current market value of its assets and liabilities compared to the tax basis of those assets and liabilities. At November 30, 2007, the Company was in a net operating loss position that results in the majority of its income taxes being deferred. During fiscal 2007, the Company recorded a deferred tax benefit of \$13.8 million attributable to its net investment loss; a deferred tax expense of \$19.3 million attributable to its realized gains; and a deferred tax expense of \$40.3 million attributable to its unrealized gains. The Company's taxes were computed based on an effective tax rate of approximately 31.5% for the fiscal year ended November 30, 2007.

Capital Raising Transactions

On April 18, 2007, the Company issued 3,600,000 shares of common stock in a public offering at \$36.70 per share, raising approximately \$132.1 million of gross proceeds (excluding the underwriting discount and offering expenses).

Proceeds from the offering were used to repay a portion of the Company's borrowings under its revolving credit line.

On May 14, 2007, the Company issued 820,916 shares of common stock in a privately negotiated transaction at a price of \$34.75 per share, raising approximately \$28.5 million of gross proceeds (excluding offering expenses). Proceeds from the offering were used to partially repay a portion of the Company's borrowings under its revolving credit line.

KAYNE ANDERSON MLP INVESTMENT COMPANY

MANAGEMENT DISCUSSION (CONCLUDED)

On June 27, 2007, the Company issued Series F Senior Notes with a maturity of 40 years, raising \$185 million in gross proceeds. The Company was able to repay the outstanding amount borrowed under its revolving credit line and invest the remaining proceeds in a manner consistent with its investment strategies. The interest rate on these notes resets every seven days.

As of November 30, 2007, the Company had outstanding borrowings on the revolving credit line of \$97 million.

In order to partially hedge itself from a floating interest expense on its leverage, the Company has entered into eighteen interest rate swap contracts on a notional amount of \$510 million with a weighted average fixed rate of 4.71% and weighted average duration of 2.9 years (as of November 30, 2007). In each of these contracts, the Company pays a fixed rate of interest and receives a floating rate of interest based on the London Interbank Offered Rate (LIBOR).

During fiscal year 2007, we made new investments of \$379 million and raised new long-term capital, net of fees and expenses, of approximately \$339 million. We completed fifteen private transactions investing a total of \$329 million. As of November 30, 2007, the Company held investments in freely tradable (or public) equity securities valued at \$2.0 billion and held investments in restricted (or private) equity securities valued at \$196 million. The total value at year-end of the Company's long-term investments was \$2.2 billion.

Recent Events

On December 6, 2007, the Company entered into two additional interest rate swap agreements with notional value of \$50 million and \$85 million, at a fixed interest rate of 3.85% and 3.77%, respectively. The \$85 million interest rate swap agreement is forward starting beginning in April 2008 and was added to replace existing swap contracts that mature in March and April 2008. On January 18, 2008, the Company entered into an interest rate swap agreement with a notional amount of \$50 million at a fixed interest rate of 3.20%. Each of these interest rate swap agreements have maturities of three years.

On January 11, 2008, the Company paid a dividend to its common stockholders in the amount of \$0.495 per share, for a total of \$21.4 million. Pursuant to the Company's dividend reinvestment plan, \$6.0 million was reinvested into the Company, and in connection with that reinvestment 205,813 shares of common stock were issued.

KAYNE ANDERSON MLP INVESTMENT COMPANY**SCHEDULE OF INVESTMENTS****NOVEMBER 30, 2007****(amounts in 000 s)**

Description	No. of Shares/Units	Value
Long-Term Investments 169.1%		
Equity Investments(a) 169.1%		
Midstream MLP(b) 128.8%		
Atlas Pipeline Partners, L.P.	417	\$ 18,737
Boardwalk Pipeline Partners, LP	522	16,668
Buckeye Partners, L.P.	215	10,338
Copano Energy, L.L.C.	3,285	128,121
Copano Energy, L.L.C. Unregistered(c)	144	5,180
Copano Energy, L.L.C. Unregistered, Class E Units(c)(d)	157	5,068
Crosstex Energy, L.P.	2,614	87,657
Crosstex Energy, L.P. Class C Senior Subordinated Units(c)(d)	356	11,657
DCP Midstream Partners, LP	142	5,800
Duncan Energy Partners L.P.	193	4,399
Eagle Rock Energy Partners L.P.	95	1,995
El Paso Pipeline Partners, L.P.(d)	774	18,044
Enbridge Energy Management, L.L.C.(e)	668	34,550
Enbridge Energy Partners, L.P.	1,493	76,411
Energy Transfer Partners, L.P.	3,875	199,544
Enterprise Products Partners L.P.	5,279	165,012
Genesis Energy, L.P.	39	865
Global Partners LP	1,464	40,209
Hiland Partners, LP	162	7,690
Holly Energy Partners, L.P.	226	9,844
Kinder Morgan Management, LLC(e)	2,939	147,117
Magellan Midstream Partners, L.P.	3,756	164,427
MarkWest Energy Partners, L.P.	2,183	71,533
Martin Midstream Partners L.P.	295	11,358
NuStar Energy L.P.	525	29,735
ONEOK Partners, L.P.	905	54,450
Plains All American Pipeline, L.P.	3,112	162,714
Regency Energy Partners LP	1,949	60,134
SemGroup Energy Partners, L.P.	211	5,642
Spectra Energy Partners, LP	280	7,007
Sunoco Logistics Partners L.P.	137	6,848
Targa Resources Partners LP	401	11,431
TC PipeLines, LP	1,298	47,958
TEPPCO Partners, L.P.	677	26,883
Williams Partners L.P.	473	19,444

		1,674,470
Propane MLP 8.6%		
Ferrellgas Partners, L.P.	877	20,149
Inergy, L.P.	2,839	91,712
		111,861

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY**SCHEDULE OF INVESTMENTS (CONTINUED)****NOVEMBER 30, 2007****(amounts in 000 s)**

Description	No. of Shares/Units	Value
Shipping MLP 2.5%		
Capital Product Partners L.P.	121	\$ 2,984
K-Sea Transportation Partners L.P.	246	9,075
OSG America L.P.(d)	135	2,523
Teekay LNG Partners L.P.	369	10,938
Teekay Offshore Partners L.P.	263	6,770
		32,290
Coal MLP 4.4%		
Clearwater Natural Resources, LP Unregistered(c)(f)(g)	3,889	38,889
Natural Resource Partners L.P.	311	10,021
Penn Virginia Resource Partners, L.P.	319	8,363
		57,273
Upstream MLP(b) 11.4%		
Atlas Energy Resources, LLC	392	12,697
Atlas Energy Resources, LLC Unregistered(c)	1,308	39,047
BreitBurn Energy Partners L.P.	2	71
BreitBurn Energy Partners L.P. Unregistered(c)	1,982	55,029
Constellation Energy Partners LLC	157	5,356
Constellation Energy Partners LLC Unregistered(c)	841	28,085
Dorchester Minerals, L.P.	77	1,557
Legacy Reserves LP	269	5,742
		147,584
MLP Affiliates 9.2%		
Atlas Pipeline Holdings, L.P.	78	2,550
Buckeye GP Holdings L.P.	206	5,853
Crosstex Energy, Inc.	85	3,066
Energy Transfer Equity, L.P.	470	16,228
Enterprise GP Holdings L.P.	1,342	47,275
Hiland Holdings GP, LP(h)	141	3,598
Magellan Midstream Holdings, L.P.	1,147	29,704
MarkWest Hydrocarbon, Inc.(h)	185	11,354

119,628

Other MLP 3.8%

Calumet Specialty Products Partners, L.P.	692	25,574
Exterran Partners, L.P.	322	11,203
Exterran Partners, L.P. Unregistered(c)	378	12,964
		49,741

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY**SCHEDULE OF INVESTMENTS (CONCLUDED)****NOVEMBER 30, 2007****(amounts in 000 s)**

Description	No. of Shares/Units	Value
Other 0.4%		
Arlington Tankers Ltd.	50	\$ 1,075
Double Hull Tankers, Inc.	158	2,099
Omega Navigation Enterprises, Inc.	140	2,440
		5,614
Total Long-Term Investments (Cost \$1,547,317)		2,198,461
	Interest Rate	Maturity Date
Short-Term Investment 0.0%		
Repurchase Agreement 0.0%		
Bear, Stearns & Co. Inc. (Agreement dated 11/30/07 to be repurchased at \$291), collateralized by \$304 in U.S. Treasury Bonds (Cost \$290)	3.150%	12/03/07
		290
Total Investments 169.1% (Cost \$1,547,607)		2,198,751
Liabilities		
Auction Rate Senior Notes		(505,000)
Revolving Credit Line		(97,000)
Deferred Taxes		(240,695)
Other Liabilities		(10,118)
Unrealized Depreciation on Interest Rate Swap Contracts		(11,927)
Total Liabilities		(864,740)
Unrealized Appreciation on Interest Rate Swap Contracts		53
Income Tax Receivable		2,475
Other Assets		38,491
Total Liabilities in Excess of Other Assets		(823,721)
Preferred Stock at Redemption Value		(75,000)
Net Assets Applicable to Common Stockholders		\$ 1,300,030

- (a) Unless otherwise noted, equity investments are common units/common shares.
- (b) Includes Limited Liability Companies.
- (c) Fair valued securities, restricted from public sale (See Notes 2 and 6).
- (d) Security is currently not paying cash distributions but is expected to pay cash distributions or convert to securities which pay cash distributions within the next 12 months.
- (e) Distributions are paid in-kind.
- (f) Clearwater Natural Resources, LP is a privately-held MLP that the Company believes is a controlled affiliate.
- (g) Security is non-income producing.
- (h) Security or a portion thereof is segregated as collateral on interest rate swap contracts.

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY**STATEMENT OF ASSETS AND LIABILITIES****NOVEMBER 30, 2007****(amounts in 000 s, except share and per share amounts)****ASSETS**

Investments at fair value, non-controlled (Cost \$1,474,626)	\$ 2,159,572
Investments at fair value, controlled (Cost \$72,691)	38,889
Repurchase agreement (Cost \$290)	290
Total investments (Cost \$1,547,607)	2,198,751
Deposits with brokers	1,854
Receivable for securities sold	28,806
Interest, dividends and distributions receivable	1,709
Income tax receivable	2,475
Deferred debt issuance costs and other, net	6,122
Unrealized appreciation on interest rate swap contracts	53
Total Assets	2,239,770

LIABILITIES

Revolving credit line	97,000
Investment management fee payable	7,715
Payable for securities purchased	728
Accrued directors' fees and expenses	52
Accrued expenses and other liabilities	1,623
Deferred tax liability	240,695
Unrealized depreciation on interest rate swap contracts	11,927
Total Liabilities before Senior Notes	359,740

Auction Rate Senior Notes:

Series A, due April 3, 2045	85,000
Series B, due April 5, 2045	85,000
Series C, due March 31, 2045	90,000
Series E, due December 21, 2045	60,000
Series F, due July 9, 2047	185,000

Total Senior Notes	505,000
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Total Liabilities	864,740
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PREFERRED STOCK

\$25,000 liquidation value per share applicable to 3,000 outstanding shares (10,000 shares authorized)	75,000
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NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS	\$ 1,300,030
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NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS CONSIST OF

Common stock, \$0.001 par value (43,225,549 shares issued and outstanding, 199,990,000 shares authorized)	\$	43
Paid-in capital		900,452
Accumulated net investment loss, net of income taxes less dividends		(72,444)
Accumulated realized gains on investments and interest rate swap contracts, net of income taxes		70,181
Net unrealized gains on investments and interest rate swap contracts, net of income taxes		401,798
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS	\$	1,300,030
NET ASSET VALUE PER COMMON SHARE		\$30.08

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

STATEMENT OF OPERATIONS
FOR THE FISCAL YEAR ENDED NOVEMBER 30, 2007
(amounts in 000 s)

INVESTMENT INCOME**Income**

Dividends and distributions	\$ 111,170
Return of capital	(93,702)
Net dividends and distributions	17,468
Interest	801
Total Investment Income	18,269

Expenses

Investment management fees	29,682
Administration fees	967
Professional fees	752
Reports to stockholders	290
Custodian fees	250
Directors' fees	186
Insurance	172
Other expenses	553
Total Expenses Before Interest Expense, Auction Agent Fees and Taxes	32,852
Interest expense	27,947
Auction agent fees	1,226
Total Expenses Before Taxes	62,025

Net Investment Loss Before Taxes	(43,756)
Deferred tax benefit	13,791

Net Investment Loss	(29,965)
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REALIZED AND UNREALIZED GAINS/(LOSSES)**Net Realized Gains/(Losses)**

Investments	58,600
Payments on interest rate swap contracts	2,689
Deferred tax expense	(19,317)
Net Realized Gains	41,972

Net Change in Unrealized Gains/(Losses)

Investments	141,964
Interest rate swap contracts	(14,197)

Deferred tax expense	(40,269)
Net Change in Unrealized Gains	87,498
Net Realized and Unrealized Gains	129,470
NET INCREASE IN NET ASSETS RESULTING FROM OPERATIONS	99,505
DIVIDENDS TO PREFERRED STOCKHOLDERS	(4,161)
NET INCREASE IN NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS RESULTING FROM OPERATIONS	\$ 95,344

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY**STATEMENT OF CHANGES IN NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS**

(amounts in 000 s, except share amounts)

	For the Fiscal Year Ended November 30,	
	2007	2006
OPERATIONS		
Net investment loss	\$ (29,965)	\$ (23,356)
Net realized gains	41,972	14,152
Net change in unrealized gains	87,498	226,725
Net Increase in Net Assets Resulting from Operations	99,505	217,521
DIVIDENDS/DISTRIBUTIONS TO PREFERRED STOCKHOLDERS⁽¹⁾		
Dividends	(4,161)	
Distributions - return of capital		(3,732)
Dividends/Distributions to Preferred Stockholders	(4,161)	(3,732)
DIVIDENDS/DISTRIBUTIONS TO COMMON STOCKHOLDERS⁽¹⁾		
Dividends	(3,582)	
Distributions - return of capital	(74,759)	(65,492)
Dividends/Distributions to Common Stockholders	(78,341)	(65,492)
CAPITAL STOCK TRANSACTIONS		
Proceeds from common stock public offerings of 4,420,916 shares of common stock	160,647	
Underwriting discounts and offering expenses associated with the issuance of common stock	(4,597)	
Issuance of 739,797 and 889,285 shares of common stock from reinvestment of distributions, respectively	23,585	23,005
Net Increase in Net Assets Applicable to Common Stockholders from Capital Stock Transactions	179,635	23,005
Total Increase in Net Assets Applicable to Common Stockholders	196,638	171,302
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS		
Beginning of year	1,103,392	932,090
End of year	\$ 1,300,030	\$ 1,103,392

- (1) The information presented in each of these items is a characterization of a portion of the total dividends paid to preferred stockholders and common stockholders as either a dividend (ordinary income) or a distribution (return of capital). This characterization is based on the Company's earnings and profits.

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

**STATEMENT OF CASH FLOWS
FOR THE FISCAL YEAR ENDED NOVEMBER 30, 2007
(amounts in 000 s)**

CASH FLOWS FROM OPERATING ACTIVITIES

Net increase in net assets resulting from operations	\$ 99,505
Adjustments to reconcile net increase in net assets resulting from operations to net cash used in operating activities:	
Net deferred tax expense	45,795
Return of capital distributions	93,702
Realized gains	(61,289)
Unrealized gains on investments and interest rate swap contracts	(127,767)
Purchase of investments	(604,191)
Proceeds from sale of investments	224,942
Purchase of short-term investments, net	659
Increase in deposits with brokers	(1,736)
Increase in receivable for securities sold	(25,130)
Increase in interest, dividend and distributions receivables	(1,103)
Increase in income tax receivable	(366)
Decrease in investment management fee payable	(2,580)
Decrease in payable for securities purchased	(761)
Increase in accrued expenses and other liabilities	345
Net Cash Used in Operating Activities	(359,975)

CASH FLOWS FROM FINANCING ACTIVITIES

Issuance of auction rate senior notes	182,842
Issuance of shares of common stock	156,050
Proceeds from revolving credit line	80,000
Cash distributions paid to preferred stockholders	(4,161)
Cash distributions paid to common stockholders	(54,756)
Net Cash Provided by Financing Activities	359,975

NET CHANGE IN CASH

CASH BEGINNING OF YEAR

CASH END OF YEAR

\$

Supplemental disclosure of cash flow information:

Noncash financing activities not included herein consist of reinvestment of distributions of \$23,585 pursuant to the Company's dividend reinvestment plan.

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During the fiscal year ended November 30, 2007, federal and state taxes paid were \$366 and interest paid was \$27,520.

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY**FINANCIAL HIGHLIGHTS**
(amounts in 000 s, except per share amounts)

	For the Fiscal Year Ended November 30,			For the Period September 28, 2004 ⁽¹⁾ through November 30, 2004
	2007	2006	2005	
Per Share of Common Stock				
Net asset value, beginning of period	\$ 28.99	\$ 25.07	\$ 23.91	\$ 23.70 ⁽²⁾
Income from Operations⁽³⁾				
Net investment income/(loss)	(0.73)	(0.62)	(0.17)	0.02
Net realized and unrealized gain on investments, securities sold short, options and interest rate swap contracts	3.58	6.39	2.80	0.19
Total income from investment operations	2.85	5.77	2.63	0.21
Dividends/Distributions Preferred Stockholders⁽³⁾				
Dividends	(0.10) ⁽⁴⁾	⁽⁴⁾	(0.05) ⁽⁴⁾	
Distributions	⁽⁴⁾	(0.10) ⁽⁴⁾	⁽⁴⁾	
Total dividends/distributions Preferred Stockholders	(0.10)	(0.10)	(0.05)	
Dividends/Distributions Common Stockholders				
Dividends	(0.09) ⁽⁴⁾	⁽⁴⁾	(0.13) ⁽⁴⁾	
Distributions	(1.84) ⁽⁴⁾	(1.75) ⁽⁴⁾	(1.37) ⁽⁴⁾	
Total dividends/distributions Common Stockholders	(1.93)	(1.75)	(1.50)	
Capital Stock Transactions⁽³⁾				
Underwriting discounts and offering costs on the issuance of preferred stock			(0.03)	
Anti-dilutive effect due to issuance of common stock, net of	0.26		0.11	

underwriting discounts and offering costs				
Anti-dilutive effect due to shares issued in reinvestment of dividends	0.01			
Total capital stock transactions	0.27		0.08	
Net asset value, end of period	\$ 30.08	\$ 28.99	\$ 25.07	\$ 23.91
Market value per share of common stock, end of period	\$ 28.27	\$ 31.39	\$ 24.33	\$ 24.90
Total investment return based on common stock market value ⁽⁵⁾	(4.4)%	37.9%	3.7%	(0.4)%
Supplemental Data and Ratios⁽⁶⁾				
Net assets applicable to common stockholders, end of period	\$ 1,300,030	\$ 1,103,392	\$ 932,090	\$ 792,836
Ratio of expenses to average net assets, including current and deferred income tax expense	8.3% ⁽⁷⁾	18.9% ⁽⁷⁾	8.7% ⁽⁷⁾	4.7% ⁽⁷⁾
Ratio of expenses to average net assets, excluding current and deferred income taxes	4.8% ⁽⁷⁾	5.1% ⁽⁷⁾	2.3% ⁽⁷⁾	1.2% ⁽⁷⁾
Ratio of expenses, excluding taxes and interest expenses, to average net assets	2.5%	3.4%	1.5%	%
Ratio of net investment income/(loss) to average net assets	(2.3)%	(2.4)%	(0.7)%	0.5%
Net increase in net assets to common stockholders resulting from operations to average net assets	7.3%	21.7%	10.0%	0.9% ⁽⁸⁾
Portfolio turnover rate	10.6% ⁽⁹⁾	10.0% ⁽⁹⁾	25.6% ⁽⁹⁾	11.8% ⁽⁹⁾
Auction Rate Senior Notes outstanding, end of period	\$ 505,000	\$ 320,000	\$ 260,000	
Revolving credit line	\$ 97,000	\$ 17,000		
Auction Rate Preferred Stock, end of period	\$ 75,000	\$ 75,000	\$ 75,000	
Asset coverage of Auction Rate Senior Notes	372.3% ⁽¹⁰⁾	468.3% ⁽¹⁰⁾	487.3% ⁽¹⁰⁾	
Asset coverage of Auction Rate Preferred Stock	292.0% ⁽¹¹⁾	367.8% ⁽¹¹⁾	378.2% ⁽¹¹⁾	
Average amount of borrowings outstanding per share of common stock during the period	\$ 12.14 ⁽³⁾	\$ 8.53 ⁽³⁾	\$ 5.57 ⁽³⁾	

(1) Commencement of operations.

- (2) Initial public offering price of \$25.00 per share less underwriting discounts of \$1.25 per share and offering costs of \$0.05 per share.

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

FINANCIAL HIGHLIGHTS (CONCLUDED)
(amounts in 000 s, except share and per share amounts)

- (3) Based on average shares of common stock outstanding of 41,134,949, 37,638,314, 34,077,731 and 33,165,900, for the fiscal year ended November 30, 2007, the fiscal year ended November 30, 2006, the fiscal year ended November 30, 2005 and the period September 28, 2004 through November 30, 2004, respectively.
- (4) The information presented in each of these items is a characterization of a portion of the total dividends paid to preferred stockholders and common stockholders for the fiscal years ended November 30, 2007, November 30, 2006 and November 30, 2005 as either a dividend (ordinary income) or a distribution (return of capital). This characterization is based on the Company's earnings and profits.
- (5) Not annualized for the period September 28, 2004 through November 30, 2004.

Total investment return is calculated assuming a purchase of common stock at the market price on the first day and a sale at the current market price on the last day of the period reported. The calculation also assumes reinvestment of dividends at actual prices pursuant to the Company's dividend reinvestment plan.

- (6) Unless otherwise noted, ratios are annualized for periods of less than one full year.
- (7) For the fiscal year ended November 30, 2007, the Company's deferred tax benefit was \$13,791 and deferred tax expense was \$59,586.

For the fiscal year ended November 30, 2006, the Company's current tax benefit was \$65 and deferred tax expense was \$135,738.

For the fiscal year ended November 30, 2005, its current tax expense was \$3,669 and deferred tax expense was \$52,179.

For the period September 28, 2004 through November 30, 2004, its current income tax expense was \$763 and deferred tax expense was \$3,755.

- (8) Not annualized.
- (9) Amount not annualized for the period September 28, 2004 through November 30, 2004. For the fiscal years ended November 30, 2007, November 30, 2006, November 30, 2005, and the period September 28, 2004 through November 30, 2004, calculated based on the sales of \$224,942, \$144,884, \$263,296 and \$16,880, respectively of long-term investments divided by the average long-term investment balance of \$2,121,931, \$1,456,695, \$1,029,035 and \$143,328, respectively.
- (10) Represents the value of total assets less all liabilities and indebtedness not represented by Auction Rate Senior Notes (senior securities as defined in the Investment Company Act of 1940 (the 1940 Act)) divided by the aggregate amount of Auction Rate Senior Notes. For the purpose of the 1940 Act, the revolving credit line is not considered a senior security. For the purpose of the 1940 Act, the revolving credit line is treated as a senior security only in circumstances when the Company is issuing additional Senior Securities.

- (11) Represents the value of total assets less all liabilities and indebtedness not represented by Auction Rate Senior Notes, Auction Rate Preferred Stock and amounts borrowed under the revolving credit line divided by the aggregate amount of Auction Rate Senior Notes, Auction Rate Preferred Stock and amounts borrowed under the revolving credit line.

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

NOTES TO FINANCIAL STATEMENTS

NOVEMBER 30, 2007

(amounts in 000 s, except option contracts written, share and per share amounts)

1. Organization

Kayne Anderson MLP Investment Company (the Company) was organized as a Maryland corporation on June 4, 2004, and is a non-diversified closed-end management investment company registered under the Investment Company Act of 1940, as amended (the 1940 Act). The Company's investment objective is to obtain a high after-tax total return by investing at least 85% of its net assets plus any borrowings (total assets) in energy-related master limited partnerships and their affiliates (collectively, MLPs), and in other companies that, as their principal business, operate assets used in the gathering, transporting, processing, storing, refining, distributing, mining or marketing of natural gas, natural gas liquids (including propane), crude oil, refined petroleum products or coal (collectively with MLPs, Midstream Energy Companies). The Company commenced operations on September 28, 2004. The Company's shares of common stock are listed on the New York Stock Exchange, Inc. (NYSE) under the symbol KYN.

2. Significant Accounting Policies

A. *Use of Estimates* The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP) requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the period. Actual results could differ materially from those estimates.

B. *Calculation of Net Asset Value* The Fund determines its net asset value as of the close of regular session trading on the NYSE (normally 4:00 p.m. Eastern time) no less frequently than the last business day of each month, and makes its net asset value available for publication monthly. Net asset value is computed by dividing the value of the Company's assets (including accrued interest and dividends), less all of its liabilities (including accrued expenses, dividends payable, current and deferred and other accrued income taxes, and any borrowings) and the liquidation value of any outstanding preferred stock, by the total number of common shares outstanding.

C. *Investment Valuation* Readily marketable portfolio securities listed on any exchange other than the NASDAQ Stock Market, Inc. (NASDAQ) are valued, except as indicated below, at the last sale price on the business day as of which such value is being determined. If there has been no sale on such day, the securities are valued at the mean of the most recent bid and asked prices on such day, except for short sales and call options contracts written, for which the last quoted asked price is used. Securities admitted to trade on the NASDAQ are valued at the NASDAQ official closing price. Portfolio securities traded on more than one securities exchange are valued at the last sale price on the business day as of which such value is being determined at the close of the exchange representing the principal market for such securities.

Equity securities traded in the over-the-counter market, but excluding securities admitted to trading on the NASDAQ, are valued at the closing bid prices. Fixed income securities with a remaining maturity of 60 days or more are valued by the Company using a pricing service. Fixed income securities maturing within 60 days will be valued on an amortized cost basis.

The Company holds securities that are privately issued or otherwise restricted as to resale. For these securities, as well as any other portfolio security held by the Company for which reliable market quotations are not readily available, valuations are determined in a manner that most fairly reflects fair value of the security on the valuation date. Unless otherwise determined by the Board of Directors, the following valuation process is used for such securities:

Investment Team Valuation. The applicable investments are initially valued by KA Fund Advisors, LLC (Kayne Anderson or the Adviser) investment professionals responsible for the portfolio investments;

Investment Team Valuation Documentation. Preliminary valuation conclusions are documented and discussed with senior management of Kayne Anderson. Such valuations generally are submitted to the

KAYNE ANDERSON MLP INVESTMENT COMPANY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Valuation Committee (a committee of the Company's Board of Directors) or the Board of Directors on a monthly basis, and stand for intervening periods of time.

Valuation Committee. The Valuation Committee meets on or about the end of each month to consider new valuations presented by Kayne Anderson, if any, which were made in accordance with the Valuation Procedures in such month. Between meetings of the Valuation Committee, a senior officer of Kayne Anderson is authorized to make valuation determinations. The Valuation Committee's valuations stand for intervening periods of time unless the Valuation Committee meets again at the request of Kayne Anderson, the Board of Directors, or the Valuation Committee itself. All valuation determinations of the Valuation Committee are subject to ratification by the Board at its next regular meeting.

Valuation Firm. No less than quarterly, a third-party valuation firm engaged by the Board of Directors reviews the valuation methodologies and calculations employed for these securities.

Board of Directors Determination. The Board of Directors meets quarterly to consider the valuations provided by Kayne Anderson and the Valuation Committee, if applicable, and ratify valuations for the applicable securities. The Board of Directors considers the report provided by the third-party valuation firm in reviewing and determining in good faith the fair value of the applicable portfolio securities.

Unless otherwise determined by the Board of Directors, securities that are convertible into or otherwise will become publicly traded (*e.g.*, through subsequent registration or expiration of a restriction on trading) are valued through the process described above, using a valuation based on the market value of the publicly traded security less a discount. The discount is initially equal in amount to the discount negotiated at the time the purchase price is agreed to. To the extent that such securities are convertible or otherwise become publicly traded within a time frame that may be reasonably determined, Kayne Anderson may determine an amortization schedule for the discount in accordance with a methodology approved by the Valuation Committee.

At November 30, 2007, the Company held 15.1% of its net assets applicable to common stockholders (8.8% of total assets) in securities valued at fair value as determined pursuant to procedures adopted by the Board of Directors, with fair value of \$195,919. Although these securities may be resold in privately negotiated transactions (subject to certain lock-up restrictions), these values may differ from the values that would have been used had a ready market for these securities existed, and the differences could be material.

Exchange traded options and futures contracts are valued at the closing price in the market where such contracts are principally traded.

In September 2006, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) No. 157, Fair Value Measurements. This standard establishes a single authoritative definition of fair value, sets out a framework for measuring fair value and requires additional disclosures about fair value measurements. SFAS No. 157 applies to fair value measurements already required or permitted by existing standards. SFAS No. 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007 and interim periods within those fiscal years. The changes to current generally accepted accounting principles from the application of this Statement relate to the definition of fair value, the methods used to measure fair value, and the expanded disclosures about fair value measurements. As of December 1, 2007, the Company adopted SFAS No. 157.

The Company has performed an analysis of all existing investments and derivative instruments to determine the significance and character of all inputs to their fair value determination. Based on this assessment, the adoption of this standard did not have any material effect on the Company's net asset value.

D. Repurchase Agreements The Company has agreed to purchase securities from financial institutions subject to the seller's agreement to repurchase them at an agreed-upon time and price (repurchase agreements). The financial institutions with whom the Company enters into repurchase agreements are banks and broker/ dealers which Kayne Anderson considers creditworthy. The seller under a repurchase agreement is required to maintain the value of the securities as collateral, subject to the agreement, at not less than the repurchase price plus accrued

KAYNE ANDERSON MLP INVESTMENT COMPANY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

interest. Kayne Anderson monitors daily the mark-to-market of the value of the collateral, and, if necessary, requires the seller to maintain additional securities, so that the value of the collateral is not less than the repurchase price. Default by or bankruptcy of the seller would, however, expose the Company to possible loss because of adverse market action or delays in connection with the disposition of the underlying securities.

E. *Short Sales* A short sale is a transaction in which the Company sells securities it does not own (but has borrowed) in anticipation of or to hedge against a decline in the market price of the securities. To complete a short sale, the Company may arrange through a broker to borrow the securities to be delivered to the buyer. The proceeds received by the Company for the short sale are retained by the broker until the Company replaces the borrowed securities. In borrowing the securities to be delivered to the buyer, the Company becomes obligated to replace the securities borrowed at their market price at the time of replacement, whatever the price may be.

All short sales are fully collateralized. The Company maintains assets consisting of cash or liquid securities equal in amount to the liability created by the short sale. These assets are adjusted daily to reflect changes in the value of the securities sold short. The Company is liable for any dividends or distributions paid on securities sold short.

The Company may also sell short against the box (*i.e.*, the Company enters into a short sale as described above while holding an offsetting long position in the security which it sold short). If the Company enters into a short sale against the box, the Company segregates an equivalent amount of securities owned as collateral while the short sale is outstanding. At November 30, 2007, the Company had no open short sales.

F. *Option Writing* When the Company writes an option, an amount equal to the premium received by the Company is recorded as a liability and is subsequently adjusted to the current fair value of the option written. Premiums received from writing options that expire unexercised are treated by the Company on the expiration date as realized gains from investments. The difference between the premium and the amount paid on effecting a closing purchase transaction, including brokerage commissions, is also treated as a realized gain, or if the premium is less than the amount paid for the closing purchase transaction, as a realized loss. If a call option is exercised, the premium is added to the proceeds from the sale of the underlying security in determining whether the Company has realized a gain or loss. If a put option is exercised, the premium reduces the cost basis of the securities purchased by the Company. The Company, as the writer of an option, bears the market risk of an unfavorable change in the price of the security underlying the written option. At November 30, 2007, there were no option contracts written.

G. *Security Transactions and Investment Income* Security transactions are accounted for on the date the securities are purchased or sold (trade date). Realized gains and losses are reported on an identified cost basis. Dividend and distribution income is recorded on the ex-dividend date. Distributions received from the Company's investments in MLPs generally are comprised of income and return of capital. For the fiscal year ended November 30, 2007, the Company estimated that 90% of the MLP distributions received would be treated as a return of capital. The Company recorded as return of capital the amount of \$93,702 of dividends and distributions received from MLPs. Included in this amount is a reduction of \$5,011 attributable to distributions received in fiscal 2006 based on tax reporting information received by the Company in fiscal 2007. The return of capital of \$93,702, resulted in an equivalent reduction in the cost basis of the associated MLP investments. Net Realized Gains and Net Change in Unrealized Gains in the accompanying Statement of Operations were increased by \$5,430 and \$88,272, respectively, attributable to the recording of such dividends and distributions as reductions in the cost basis of investments. The Company records investment income and return of capital based on estimates made at the time such distributions are received.

Such estimates are based on historical information available from each MLP and other industry sources. These estimates may subsequently be revised based on information received from MLPs after their tax reporting periods are concluded. Interest income is recognized on the accrual basis, including amortization of premiums and accretion of discounts.

H. *Dividends and Distributions to Stockholders* Dividends and distributions to common stockholders are recorded on the ex-dividend date. The character of dividends made during the year may differ from their ultimate

KAYNE ANDERSON MLP INVESTMENT COMPANY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

characterization for federal income tax purposes. Dividends and distributions to stockholders of the Company's Auction Rate Preferred Stock, Series D are accrued on a daily basis and are determined as described in Note 11 Preferred Stock. The Company's dividends will be comprised of return of capital and/or ordinary income, which is based on the earnings and profits of the Company. The Company is unable to make final determinations as to the character of the dividend until the January after the end of the current fiscal year. The Company will inform its common stockholders of the character of dividends during that fiscal year in January following such fiscal year.

I. Partnership Accounting Policy The Company records its pro-rata share of the income/(loss) and capital gains/(losses), to the extent of dividends it has received, allocated from the underlying partnerships and adjusts the cost of the underlying partnerships accordingly. These amounts are included in the Company's Statement of Operations.

J. Federal and State Income Taxation The Company, as a corporation, is obligated to pay federal and state income tax on its taxable income. The Company invests its assets primarily in MLPs, which generally are treated as partnerships for federal income tax purposes. As a limited partner in the MLPs, the Company includes its allocable share of the MLP's taxable income in computing its own taxable income. Deferred income taxes reflect (i) taxes on unrealized gains/(losses), which are attributable to the temporary difference between fair market value and tax basis, (ii) the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes and (iii) the net tax benefit of accumulated net operating losses. To the extent the Company has a net deferred tax asset, a valuation allowance is recognized if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred income tax asset will not be realized. Future realization of deferred tax assets ultimately depends on the existence of sufficient taxable income of the appropriate character in either the carryback or carryforward period under the tax law.

The Company may rely to some extent on information provided by the MLPs, which may not necessarily be timely, to estimate taxable income allocable to the MLP units held in the portfolio and to estimate the associated deferred tax liability. Such estimates are made in good faith and reviewed in accordance with the valuation process approved by the Board of Directors. From time to time the Company modifies its estimates or assumptions regarding the deferred tax liability as new information become available.

In June 2006, the Financial Accounting Standards Board (FASB) issued FASB Interpretation 48 (FIN 48), Accounting for Uncertainty in Income Taxes. This standard defines the threshold for recognizing the benefits of tax-return positions in the financial statements as more-likely-than-not to be sustained by the taxing authority and requires measurement of a tax position meeting the more-likely-than-not criterion, based on the largest benefit that is more than 50 percent likely to be realized. At adoption, companies must adjust their financial statements to reflect only those tax positions that are more-likely-than-not to be sustained as of the adoption date. The Company adopted FIN 48 as of December 1, 2007, and the adoption of the interpretation did not have a material effect on the Company's net asset value.

K. Organization Expenses, Offering and Debt Issuance Costs The Company was responsible for paying all organization expenses, which were expensed when the shares of common stock were issued in the Company's IPO. Offering costs (including underwriting discount) related to the Company's issuances of common stock and issuance of Series D preferred stock were charged to additional paid-in capital when the shares were issued. Debt issuance costs (including underwriting discount) related to the auction rate senior notes payable are being capitalized and amortized

over the period the notes are outstanding.

L. Derivative Financial Instruments The Company uses derivative financial instruments (principally interest rate swap contracts) to manage interest rate risk. The Company has established policies and procedures for risk assessment and the approval, reporting and monitoring of derivative financial instrument activities. The Company does not hold or issue derivative financial instruments for speculative purposes. All derivative financial instruments are recorded at fair value with changes in value during the reporting period, and amounts accrued under

KAYNE ANDERSON MLP INVESTMENT COMPANY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

the agreements, included as unrealized gains or losses in the Statement of Operations. Monthly cash settlements under the terms of the interest rate swap agreements are recorded as realized gains or losses in the Statement of Operations. The Company generally values its interest rate swap contracts based on dealer quotations, if available, or by discounting the future cash flows from the stated terms of the interest rate swap agreement by using interest rates currently available in the market.

M. Indemnifications Under the Company's organizational documents, its officers and directors are indemnified against certain liabilities arising out of the performance of their duties to the Company. In addition, in the normal course of business, the Company enters into contracts that provide general indemnification to other parties. The Company's maximum exposure under these arrangements is unknown, as this would involve future claims that may be made against the Company that have not yet occurred, and may not occur. However, the Company has not had prior claims or losses pursuant to these contracts and expects the risk of loss to be remote.

3. Concentration of Risk

The Company's investment objective is to obtain a high after-tax total return with an emphasis on current income paid to its stockholders. Under normal circumstances, the Company intends to invest at least 85% of its total assets in securities of MLPs and other Midstream Energy Companies, and to invest at least 80% of its total assets in MLPs, which are subject to certain risks, such as supply and demand risk, depletion and exploration risk, commodity pricing risk, acquisition risk, and the risk associated with the hazards inherent in midstream energy industry activities. A substantial portion of the cash flow received by the Company is derived from investment in equity securities of MLPs. The amount of cash that an MLP has available for distributions and the tax character of such distributions are dependent upon the amount of cash generated by the MLP's operations. The Company may invest up to 15% of its total assets in any single issuer and a decline in value of the securities of such an issuer could significantly impact the net asset value of the Company. The Company may invest up to 20% of its total assets in debt securities, which may include below investment grade securities. The Company may, for defensive purposes, temporarily invest all or a significant portion of its assets in investment grade securities, short-term debt securities and cash or cash equivalents. To the extent the Company uses this strategy, it may not achieve its investment objectives.

4. Agreements and Affiliations

A. Investment Management Agreement The Company has entered into an investment management agreement with Kayne Anderson under which the Adviser, subject to the overall supervision of the Company's Board of Directors, manages the day-to-day operations of, and provides investment advisory services to, the Company. For providing these services, the Adviser receives a management fee from the Company.

On December 12, 2006, the Company held a special meeting of stockholders at which stockholders approved a new investment management agreement. As a result of the vote on this matter, the new investment management agreement replaced the previous performance-based fee structure with a fixed investment management fee at an annual rate of 1.375% of average total assets.

Pursuant to the previous investment management agreement, which was in effect through December 12, 2006, the Company agreed to pay Kayne Anderson Capital Advisors, L.P. (KACALP), the Adviser's parent company and the Company's former adviser, a basic management fee at an annual rate of 1.75% of the Company's average total assets,

adjusting upward or downward (by up to 1.00% of the Company's average total assets, as defined), depending on to what extent, if any, the Company's investment performance for the relevant performance period exceeded or trailed the Company's Benchmark over the same period. The Company's Benchmark was the total return (capital appreciation and reinvested dividends) of the Standard & Poor's 400 Utilities Index plus 600 basis points (6.00%). The basic management fee and the performance fee adjustment were calculated and paid quarterly, using a rolling 12-month performance period.

KAYNE ANDERSON MLP INVESTMENT COMPANY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

During the period December 1, 2006 through December 12, 2006, the Company paid and accrued management fees at an annual rate of 2.75% of average total assets based on the Company's investment performance. During the remainder of the fiscal year ended November 30, 2007, the Company paid and accrued management fees at an annual rate of 1.375% of average total assets.

For purposes of calculating the management fee, the Company's total assets are equal to the Company's gross asset value (which includes assets attributable to or proceeds from the Company's use of preferred stock, commercial paper or notes issuances and other borrowings), minus the sum of the Company's accrued and unpaid dividends on any outstanding common stock and accrued and unpaid dividends on any outstanding preferred stock and accrued liabilities (other than liabilities associated with borrowing or leverage by the Company and any accrued taxes). Liabilities associated with borrowing or leverage by the Company include the principal amount of any borrowings, commercial paper or notes issued by the Company, the liquidation preference of any outstanding preferred stock, and other liabilities from other forms of borrowing or leverage such as short positions and put or call options held or written by the Company.

B. *Portfolio Companies* From time to time, the Company may control or may be an affiliate of one or more portfolio companies, each as defined in the 1940 Act. In general, under the 1940 Act, the Company would be presumed to control a portfolio company if the Company owned 25% or more of its outstanding voting securities and would be an affiliate of a portfolio company if the Company owned 5% or more of its outstanding voting securities. The 1940 Act contains prohibitions and restrictions relating to transactions between investment companies and their affiliates (including the Company's investment adviser), principal underwriters and affiliates of those affiliates or underwriters.

The Company believes that there is significant ambiguity in the application of existing SEC staff interpretations of the term voting security to complex structures such as limited partnership interests of the kind in which the Company invests. As a result, it is possible that the SEC staff may consider that certain securities investments in limited partnerships are voting securities under the staff's prevailing interpretations of this term. If such determination is made, the Company may be regarded as a person affiliated with and controlling the issuer(s) of those securities for purposes of Section 17 of the 1940 Act.

In light of the ambiguity of the definition of voting securities, the Company does not intend to treat any class of securities that it holds as voting securities unless the security holders of such class have the ability, under the partnership agreement, to remove the general partner (assuming a sufficient vote of such securities, other than securities held by the general partner, in favor of such removal) or the Company has an economic interest of sufficient size that otherwise gives it the de facto power to exercise a controlling influence over the partnership. The Company believes this treatment is appropriate given that the general partner controls the partnership, and without the ability to remove the general partner or the power to otherwise exercise a controlling influence over the partnership due to the size of an economic interest, the security holders have no control over the partnership.

At November 30, 2007, the Company held approximately 42.5% of the partnership interest of Clearwater Natural Resources, LP (Clearwater). The Company's Chief Executive Officer serves as a director on the board of the general partner of Clearwater. An employee of KAFA acts as a management consultant to Clearwater and provides guidance to the Company on management and operational matters on a regular basis. The Company is in discussions with the owners of Clearwater's general partner regarding a purchase of the general partner by the Company, but there can be no assurances whether or under what terms such a transaction would occur. Based on the totality of the facts and

circumstances as they exist as of November 30, 2007, the Company believes that it controls and is an affiliate of Clearwater. During the period there were no purchases or sales of this security.

C. *Other Affiliates* For the fiscal year ended November 30, 2007, KA Associates, Inc., an affiliate of Kayne Anderson, earned approximately \$3 in brokerage commissions from portfolio transactions executed on behalf of the Company.

KAYNE ANDERSON MLP INVESTMENT COMPANY**NOTES TO FINANCIAL STATEMENTS (CONTINUED)****5. Income Taxes**

Deferred income taxes reflect (i) taxes on unrealized gains/(losses), which are attributable to the difference between fair market value and tax basis, (ii) the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes and (iii) the net tax benefit of accumulated net operating losses. Components of the Company's deferred tax assets and liabilities as of November 30, 2007 are as follows:

Deferred tax assets:	
Organizational costs	\$ (21)
Net operating loss carryforwards	(40,243)
Deferred tax liabilities:	
Net unrealized gains on investment securities and interest rate swap contracts	277,182
Other temporary differences	3,777
 Total net deferred tax liability	 \$ 240,695

At November 30, 2007, the Company had net operating loss carryforwards of \$108,764. The federal and state net operating loss carryforwards available are subject to limitations on their annual usage. Realization of the deferred tax assets and net operating loss carryforwards is dependent, in part, on generating sufficient taxable income prior to expiration of the loss carryforwards. If not utilized, \$59,149 of the net operating loss carryforward will expire in 2026 and \$49,615 will expire in 2027. There is no valuation allowance recorded on this deferred tax asset as the Company believes it is more likely than not that the asset will be utilized.

At November 30, 2007, the cost basis of investments for federal income tax purposes was \$1,438,397. The cost basis of investments includes a \$109,210 reduction in basis attributable to the Company's portion of the allocated losses from its MLP investments. At November 30, 2007, gross unrealized appreciation and depreciation of investments for federal income tax purposes were as follows:

Gross unrealized appreciation of investments	\$ 797,018
Gross unrealized depreciation of investments	(36,664)
 Net unrealized appreciation before tax and interest rate swap contracts	 760,354
Net unrealized depreciation on interest rate swap contracts	(11,873)
 Net unrealized appreciation before tax	 \$ 748,481
 Net unrealized appreciation after tax	 \$ 471,543

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For the fiscal year ended November 30, 2007, the components of income tax expense include \$50,483 of expense and \$4,688 of benefit for federal income taxes and state income taxes (net of the federal tax benefit), respectively. Total income taxes are computed by applying the federal statutory income tax rate plus a blended state income tax rate. During the period the Company's combined federal and state income tax rate decreased from 38.5% to 37.0% due to changes in certain state tax jurisdictions. The decrease in the Company's tax rate resulted in a \$7,593 benefit, which reduced the Company's income tax expense and resulted in an effective tax rate of 31.5% for the fiscal year. Total income taxes have been computed by applying the Company's effective income tax rate of 31.5% to net investment income, realized and unrealized gains on investments before taxes.

During the fiscal year ended November 30, 2007, permanent tax differences were reclassified from Accumulated Net Investment Loss to Paid-in Capital.

KAYNE ANDERSON MLP INVESTMENT COMPANY**NOTES TO FINANCIAL STATEMENTS (CONTINUED)****6. Restricted Securities**

From time to time certain of the Company's investments may be restricted as to resale, particularly private investments that are not registered under the Securities Act of 1933 and cannot, as a result, be offered for public sale for a non-exempt transaction without first being registered. Such restricted investments are valued in accordance with procedures established by the Board of Directors and more fully described in Note 2 Significant Accounting Policies. The table below shows the number of units held, the acquisition date, cost basis, and fair value as of November 30, 2007, fair value per unit of such security, percent of net assets applicable to common stockholders and percent of total assets which the security comprises:

Investment	Security	Type of Restriction	Number of Units	Acquisition Date	Cost Basis	Fair Value	Fair Value Per Unit	Percent of Net Assets ⁽¹⁾	Percent of Total Assets
Atlas Energy Resources, LLC	Common Units	(1)(2)	398	6/29/07	\$ 9,495	\$ 11,993	\$ 30.15	0.9%	0.5%
Atlas Energy Resources, LLC	Common Units	(1)(2)(3)	910	6/29/07	22,557	27,054	29.72	2.1	1.2
BreitBurn Energy Partners L.P.	Common Units	(1)	1,212	5/24/07	37,850	35,027	28.89	2.7	1.6
BreitBurn Energy Partners L.P.	Common Units	(1)	214	5/25/07	6,480	6,228	29.04	0.5	0.3
BreitBurn Energy Partners L.P.	Common Units	(1)(2)	556	10/30/07	14,779	13,774	24.79	1.0	0.6
Clearwater Natural Resources, L.P.	Common Units	(4)	3,889	(5)	72,691	38,889	10.00	3.0	1.8
Constellation Energy Partners LC	Common Units	(1)(2)	247	7/25/07	8,422	8,288	33.56	0.7	0.4
Constellation Energy Partners LC	Common Units	(1)(2)(6)	312	7/25/07	10,756	10,433	33.40	0.8	0.5
Constellation Energy Partners LC	Common Units	(1)(2)	282	9/21/07	11,857	9,364	33.16	0.7	0.4
Copano Energy, L.C.	Common Units	(1)(2)	144	10/19/07	5,000	5,180	35.91	0.4	0.2

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Opiano Energy, L.L.C.	Class E Units	(1)(2)	157	10/19/07	5,000	5,068	32.20	0.4	0.2
Crosstex Energy, L.P.	Class C Senior Subordinated Units	(7)	356	6/29/06	10,022	11,657	32.71	0.9	0.5
xterran Partners LP	Common Units	(1)	378	7/9/07	12,989	12,964	34.32	1.0	0.6
					\$ 227,898	\$ 195,919		15.1%	8.8%

(1) Security that is unregistered.

(2) Security is subject to lock-up agreement.

(3) These exchange listed Common Units were converted from Class D units on November 14, 2007.

(4) Private security.

(5) The Company purchased common units on August 1, 2005 and October 2, 2006.

(6) These exchange listed Common Units were converted from Class F units on November 12, 2007.

(7) No public market exists for the Class C Senior Subordinated Units. These units convert to exchange listed Common Units on February 16, 2008.

7. Option Contracts Written

Transactions in written call options for the fiscal year ended November 30, 2007 were as follows:

	Number of Contracts	Premiums Received
Options outstanding at beginning of year		
Call options written	2,840	\$ 294
Options exercised	(2,840)	(294)
Options outstanding at end of year		\$

KAYNE ANDERSON MLP INVESTMENT COMPANY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

8. Investment Transactions

For the fiscal year ended November 30, 2007, the Company purchased and sold securities in the amount of \$604,191 and \$224,942 (excluding short-term investments, securities sold short, options and interest rate swaps), respectively.

9. Revolving Credit Line

The Company has an uncommitted revolving credit line with Custodial Trust Company (an affiliate of the administrator, Bear Stearns Funds Management Inc.), under which the Company may borrow from Custodial Trust Company an aggregate amount of up to the lesser of \$200,000 or the maximum amount the Company is permitted to borrow under the 1940 Act, subject to certain limitations imposed by the lender. The credit line is collateralized by Company assets held in custody by Custodial Trust Company. During the fiscal year ended November 30, 2007, the average amount outstanding was \$99,730 with a weighted average interest rate of 5.99%. As of November 30, 2007, the Company had outstanding borrowings on the revolving credit line of \$97,000 and the interest rate was 5.78%. Any loans under this line are repayable on demand by the lender at any time.

10. Auction Rate Senior Notes

The Company has issued five series of auction rate senior notes, each with a maturity of 40 years from the date of original issuance, having an aggregate principal amount of \$505,000 (Senior Notes). The Senior Notes were issued in denominations of \$25. The fair value of those notes approximates carrying amount because the interest rate fluctuates with changes in interest rates available in the current market.

Holder of the Senior Notes are entitled to receive cash interest payments at an annual rate that may vary for each rate period. Interest rates for Series A, Series B, Series C, Series E and Series F as of November 30, 2007 were 5.20%, 5.35%, 5.35%, 5.44% and 5.37%, respectively. The weighted average interest rates for Series A, Series B, Series C, Series E and Series F for the fiscal year ended November 30, 2007, were 5.14%, 5.25%, 5.44%, 5.29% and 5.49%, respectively. These rates include the applicable rate based on the latest results of the auction and do not include commissions paid to the auction agent in the amount of 0.25%. For each subsequent rate period, the interest rate will be determined by an auction conducted in accordance with the procedures described in the Senior Notes prospectus. The reset rate period for Series A, Series B, Series E and Series F Senior Notes is seven days, while Series C Senior Notes reset every 28 days. The Senior Notes are not listed on any exchange or automated quotation system.

The Senior Notes are redeemable in certain circumstances at the option of the Company. The Senior Notes are also subject to a mandatory redemption to the extent needed to satisfy certain requirements if the Company fails to meet an asset coverage ratio required by law and is not able to cure the coverage deficiency by the applicable deadline, or fails to cure a deficiency as stated in the Company's rating agency guidelines in a timely manner.

The Senior Notes are unsecured obligations of the Company and, upon liquidation, dissolution or winding up of the Company, will rank: (1) senior to all the Company's outstanding preferred shares; (2) senior to all of the Company's outstanding common shares; (3) on a parity with any unsecured creditors of the Company and any unsecured senior securities representing indebtedness of the Company; and (4) junior to any secured creditors of the Company.

11. Preferred Stock

The Company has issued 3,000 shares of Series D auction rate preferred stock totaling \$75,000. The Company has 10,000 shares of authorized preferred stock. The preferred stock has rights determined by the Board of Directors. The preferred stock has a liquidation value of \$25,000 per share plus any accumulated, but unpaid dividends, whether or not declared.

Holders of preferred stock are entitled to receive cash dividend payments at an annual rate that may vary for each rate period. The dividend rate as of November 30, 2007 was 6.55%. The weighted average dividend rate for the fiscal year ended November 30, 2007, was 5.47%. This rate includes the applicable rate based on the latest results of

KAYNE ANDERSON MLP INVESTMENT COMPANY**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

the auction and does not include commissions paid to the auction agent in the amount of 0.25%. Under the 1940 Act, the Company may not declare dividends or make other distribution on shares of common stock or purchases of such shares if, at any time of the declaration, distribution or purchase, asset coverage with respect to the outstanding preferred stock would be less than 200%.

The preferred stock is redeemable in certain circumstances at the option of the Company. The preferred stock is also subject to a mandatory redemption if the Company fails to meet an asset coverage ratio required by law, or fails to cure deficiency as stated in the Company's rating agency guidelines in a timely manner.

The holders of the preferred stock have voting rights equal to the holders of common stock (one vote per share) and will vote together with the holders of shares of common stock as a single class except on matters affecting only the holders of preferred stock or the holders of common stock.

12. Interest Rate Swap Contracts

The Company has entered into interest rate swap contracts to partially hedge itself from increasing interest expense on its leverage resulting from increasing short-term interest rates. A decline in interest rates may result in a decline in the value of the swap contracts, which, everything else being held constant, would result in a decline in the net assets of the Company. In addition, if the counterparty to the interest rate swap contracts defaults, the Company would not be able to use the anticipated receipts under the swap contracts to offset the interest payments on the Company's leverage. At the time the interest rate swap contracts reach their scheduled termination, there is a risk that the Company would not be able to obtain a replacement transaction or that the terms of the replacement transaction would not be as favorable as on the expiring transaction. In addition, if the Company is required to terminate any swap contract early, then the Company could be required to make a termination payment. As of November 30, 2007, the Company has entered into eighteen interest rate swap contracts with UBS AG as summarized below. For all eighteen swaps, the Company receives a floating rate, based on one-month LIBOR.

Termination Date	Notional Amount	Fixed Rate Paid by the Company	Net Unrealized Appreciation/ (Depreciation)
3/25/2008	\$ 35,000	4.31%	\$ 32
3/25/2008	25,000	4.40	14
4/7/2008	25,000	4.35	29
3/24/2010	25,000	4.65	(491)
4/8/2010	25,000	4.55	(435)
4/15/2010	35,000	4.45	(539)
6/2/2010	30,000	4.12	(221)
7/30/2010	25,000	5.20	(899)
8/2/2010	25,000	5.05	(803)
8/17/2010	50,000	4.95	(1,497)
9/7/2010	25,000	4.75	(621)

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9/11/2010	25,000	4.65	(557)
2/28/2012	40,000	4.99	(1,594)
4/16/2012	25,000	4.65	(657)
5/9/2012	25,000	4.37	(363)
8/16/2012	50,000	5.15	(2,420)
11/14/2013	10,000	5.00	(439)
11/16/2013	10,000	4.95	(413)
	\$ 510,000		\$ (11,874)

KAYNE ANDERSON MLP INVESTMENT COMPANY

NOTES TO FINANCIAL STATEMENTS (CONCLUDED)

At November 30, 2007, the weighted average duration of the interest rate swap contracts was 2.9 years and the weighted average fixed rate was 4.71%.

13. Common Stock

The Company has 199,990,000 shares of common stock authorized and 43,225,549 shares outstanding at November 30, 2007. As of that date, KACALP owned 4,000 shares. Transactions in common shares for the fiscal year ended November 30, 2007, were as follows:

Shares outstanding at November 30, 2006	38,064,836
Shares issued through reinvestment of distributions	739,797
Shares issued in connection with offerings of common stock	4,420,916
Shares outstanding at November 30, 2007	43,225,549

14. Subsequent Events

On December 6, 2007, the Company entered into two additional interest rate swap agreements with notional value of \$50,000 and \$85,000, at a fixed interest rate of 3.85% and 3.77%, respectively. The \$85,000 interest rate swap agreement is forward starting beginning in April 2008 and was added to replace existing swap contracts that mature in March and April 2008. On January 18, 2008, the Company entered into an interest rate swap agreement with a notional amount of \$50,000 at a fixed interest rate of 3.20%. Each of these interest rate swap agreements have maturities of three years.

On January 11, 2008, the Company paid a dividend to its common stockholders in the amount of \$0.495 per share, for a total of \$21,397. Of this total, pursuant to the Company's dividend reinvestment plan, \$5,997 was reinvested into the Company, and in connection with that reinvestment 205,813 shares of common stock were issued.

KAYNE ANDERSON MLP INVESTMENT COMPANY

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Kayne Anderson MLP Investment Company:

In our opinion, the accompanying statement of assets and liabilities, including the schedule of investments, and the related statements of operations, changes in net assets applicable to common stockholders and cash flows, and the financial highlights present fairly, in all material respects, the financial position of Kayne Anderson MLP Investment Company (the Company) at November 30, 2007, and the results of its operations, the changes in its net assets applicable to common stockholders, its cash flows, and its financial highlights for each of the periods presented, in conformity with accounting principles generally accepted in the United States of America. These financial statements and financial highlights (hereafter referred to as financial statements) are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits, which included confirmation of securities owned at November 30, 2007 by correspondence with the custodian, provide a reasonable basis for our opinion.

PRICEWATERHOUSECOOPERS LLP

Los Angeles, California
January 25, 2008

KAYNE ANDERSON MLP INVESTMENT COMPANY

**PRIVACY POLICY NOTICE
(UNAUDITED)**

Kayne Anderson MLP Investment Company (the Company) considers privacy to be fundamental to its relationship with its stockholders. The Company is committed to maintaining the confidentiality, integrity and security of the non-public personal information of its stockholders and potential investors. Accordingly, the Company has developed internal policies to protect confidentiality while allowing stockholders' needs to be met. This notice applies to former as well as current stockholders and potential investors who provide the Company with nonpublic personal information.

The Company may collect several types of nonpublic personal information about stockholders or potential investors, including:

Information from forms that you may fill out and send to the Company or one of its affiliates or service providers in connection with an investment in the Company (such as name, address, and social security number);

Information you may give orally to the Company or one of its affiliates or service providers;

Information about your transactions with the Company, its affiliates, or other third parties, such as the amount stockholders have invested in the Company;

Information about any bank account stockholders or potential investors may use for transfers between a bank account and an account that holds or is expected to hold shares of its stock; and

Information collected through an Internet cookie (an information collecting device from a web server based on your use of a web site).

The Company may disclose all of the information it collects, as described above, to certain nonaffiliated third parties such as attorneys, accountants, auditors and persons or entities that are assessing its compliance with industry standards. Such third parties are required to uphold and maintain its privacy policy when handling your nonpublic personal information.

The Company may disclose information about stockholders or potential investors at their request. The Company will not sell or disclose your nonpublic personal information to anyone except as disclosed above or as otherwise permitted or required by law.

Within the Company and its affiliates, access to information about stockholders and potential investors is restricted to those personnel who need to know the information to service stockholder accounts. The personnel of the Company and its affiliates have been instructed to follow its procedures to protect the privacy of your information.

The Company reserves the right to change this privacy notice in the future. Except as described in this privacy notice, the Company will not use your personal information for any other purpose unless it informs you how such information will be used at the time you disclose it or the Company obtains your permission to do so.

KAYNE ANDERSON MLP INVESTMENT COMPANY

**DIVIDEND REINVESTMENT PLAN
(UNAUDITED)**

Kayne Anderson MLP Investment Company, a Maryland corporation (the **Company**), hereby adopts the following plan (the **Plan**) with respect to distributions declared by its Board of Directors (the **Board**) on shares of its Common Stock:

1. Unless a stockholder specifically elects to receive cash as set forth below, all distributions hereafter declared by the Board shall be payable in shares of the Common Stock of the Company, and no action shall be required on such stockholder's part to receive a distribution in stock.
2. Such distributions shall be payable on such date or dates as may be fixed from time to time by the Board to stockholders of record at the close of business on the record date(s) established by the Board for the distribution involved.
3. The Company may use newly-issued shares of its Common Stock or purchase shares in the open market in connection with the implementation of the plan. The number of shares to be issued to a stockholder shall be determined as follows: (a) If the Company's Common Stock is trading at or above net asset value at the time of valuation, the Company will issue new shares at a price equal to the greater of (i) the Company's Common Stock's net asset value on that date or (ii) 95% of the market price of the Company's Common Stock on that date; (b) If the Company's Common Stock is trading below net asset value at the time of valuation, the Plan Administrator will receive the dividend or distribution in cash and will purchase Common Stock in the open market, on the New York Stock Exchange or elsewhere, for the Participants' accounts, except that the Plan Administrator will endeavor to terminate purchases in the open market and cause the Company to issue the remaining shares if, following the commencement of the purchases, the market value of the shares, including brokerage commissions, exceeds the net asset value at the time of valuation. These remaining shares will be issued by the Company at a price equal to the greater of (i) the net asset value at the time of valuation or (ii) 95% of the then current market price.
4. In a case where the Plan Administrator has terminated open market purchases and caused the issuance of remaining shares by the Company, the number of shares received by the participant in respect of the cash dividend or distribution will be based on the weighted average of prices paid for shares purchased in the open market, including brokerage commissions, and the price at which the Company issues remaining shares. To the extent that the Plan Administrator is unable to terminate purchases in the open market before the Plan Administrator has completed its purchases, or remaining shares cannot be issued by the Company because the Company declared a dividend or distribution payable only in cash, and the market price exceeds the net asset value of the shares, the average share purchase price paid by the Plan Administrator may exceed the net asset value of the shares, resulting in the acquisition of fewer shares than if the dividend or distribution had been paid in shares issued by the Company.
5. A stockholder may, however, elect to receive his or its distributions in cash. To exercise this option, such stockholder shall notify American Stock Transfer & Trust Company, the plan administrator and the Company's transfer agent and registrar (collectively the **Plan Administrator**), in writing so that such notice is received by the Plan Administrator no later than the record date fixed by the Board for the distribution involved.
6. The Plan Administrator will set up an account for shares acquired pursuant to the Plan for each stockholder who has not so elected to receive dividends and distributions in cash (each, a **Participant**). The Plan Administrator may hold each Participant's shares, together with the shares of other Participants, in non-certificated form in the Plan

Administrator's name or that of its nominee. Upon request by a Participant, received no later than three (3) days prior to the payable date, the Plan Administrator will, instead of crediting shares to and/or carrying shares in a Participant's account, issue, without charge to the Participant, a certificate registered in the Participant's name for the number of whole shares payable to the Participant and a check for any fractional share less a broker commission on the sale of such fractional shares. If a request to terminate a Participant's participation in the Plan is received less than three (3) days before the payable date, dividends and distributions for that payable date will be reinvested. However, subsequent dividends and distributions will be paid to the Participant in cash.

7. The Plan Administrator will confirm to each Participant each acquisition made pursuant to the Plan as soon as practicable but not later than 10 business days after the date thereof. Although each Participant may from time to time have an undivided fractional interest (computed to three decimal places) in a share of Common Stock of the

KAYNE ANDERSON MLP INVESTMENT COMPANY

**DIVIDEND REINVESTMENT PLAN (CONCLUDED)
(UNAUDITED)**

Company, no certificates for a fractional share will be issued. However, dividends and distributions on fractional shares will be credited to each Participant's account. In the event of termination of a Participant's account under the Plan, the Plan Administrator will adjust for any such undivided fractional interest in cash at the market value of the Company's shares at the time of termination.

8. The Plan Administrator will forward to each Participant any Company related proxy solicitation materials and each Company report or other communication to stockholders, and will vote any shares held by it under the Plan in accordance with the instructions set forth on proxies returned by Participants to the Company.

9. In the event that the Company makes available to its stockholders rights to purchase additional shares or other securities, the shares held by the Plan Administrator for each Participant under the Plan will be added to any other shares held by the Participant in certificated form in calculating the number of rights to be issued to the Participant.

10. The Plan Administrator's service fee, if any, and expenses for administering the Plan will be paid for by the Company.

11. Each Participant may terminate his or its account under the Plan by so notifying the Plan Administrator via the Plan Administrator's website at www.amstock.com, by filling out the transaction request form located at the bottom of the Participant's Statement and sending it to American Stock Transfer and Trust Company, P.O. Box 922, Wall Street Station, New York, NY 10269-0560 or by calling the Plan Administrator at (888) 888-0317. Such termination will be effective immediately. The Plan may be terminated by the Company upon notice in writing mailed to each Participant at least 30 days prior to any record date for the payment of any dividend or distribution by the Company. Upon any termination, the Plan Administrator will cause a certificate or certificates to be issued for the full shares held for the Participant under the Plan and a cash adjustment for any fractional share to be delivered to the Participant without charge to the Participant. If a Participant elects by his or its written notice to the Plan Administrator in advance of termination to have the Plan Administrator sell part or all of his or its shares and remit the proceeds to the Participant, the Plan Administrator is authorized to deduct a \$15.00 transaction fee plus a \$0.10 per share brokerage commission from the proceeds.

12. These terms and conditions may be amended or supplemented by the Company at any time but, except when necessary or appropriate to comply with applicable law or the rules or policies of the Securities and Exchange Commission or any other regulatory authority, only by mailing to each Participant appropriate written notice at least 30 days prior to the effective date thereof. The amendment or supplement shall be deemed to be accepted by each Participant unless, prior to the effective date thereof, the Plan Administrator receives written notice of the termination of his or its account under the Plan. Any such amendment may include an appointment by the Plan Administrator in its place and stead of a successor agent under these terms and conditions, with full power and authority to perform all or any of the acts to be performed by the Plan Administrator under these terms and conditions. Upon any such appointment of any agent for the purpose of receiving dividends and distributions, the Company will be authorized to pay to such successor agent, for each Participant's account, all dividends and distributions payable on shares of the Company held in the Participant's name or under the Plan for retention or application by such successor agent as provided in these terms and conditions.

13. The Plan Administrator will at all times act in good faith and use its best efforts within reasonable limits to ensure its full and timely performance of all services to be performed by it under this Plan and to comply with applicable law,

but assumes no responsibility and shall not be liable for loss or damage due to errors unless such error is caused by the Plan Administrator's negligence, bad faith, or willful misconduct or that of its employees or agents.

14. These terms and conditions shall be governed by the laws of the State of Maryland.

Adopted: September 27, 2004

Amended: December 13, 2005

KAYNE ANDERSON MLP INVESTMENT COMPANY**INFORMATION CONCERNING DIRECTORS AND CORPORATE OFFICERS
(UNAUDITED)**

Name, Address (Year Born)	Position(s) Held with Registrant	Term of Office/ Time of Service	Principal Occupations During Past Five Years	Other Directorships Held by Director/Officer
Independent Directors⁽¹⁾				
Anne K. Costin c/o Kayne Anderson Capital Advisors, L.P. 1800 Avenue of the Stars, 2nd Floor Los Angeles, CA 90067 (born 1950)	Director	3-year term (until the 2010 Annual Meeting of Stockholders)/served since July 2004	Adjunct Professor in the Finance and Economics Department of Columbia University Graduate School of Business in New York. As of March 1, 2005, Ms. Costin retired after a 28-year career at Citigroup. During the last five years she was Managing Director and Global Deputy Head of the Project & Structured Trade Finance product group within Citigroup's Investment Banking Division.	Kayne Anderson Energy Total Return Fund, Inc.
Steven C. Good c/o Kayne Anderson Capital Advisors, L.P. 1800 Avenue of the Stars, 2nd Floor Los Angeles, CA 90067 (born 1942)	Director	3-year term (until the 2009 Annual Meeting of Stockholders)/served since July 2004	Senior partner at Good Swartz Brown & Berns LLP, which offers accounting, tax and business advisory services to middle market private and publicly-traded companies, their owners and their management. Founded Block, Good and Gagerman in 1976, which later evolved in stages into Good Swartz Brown & Berns LLP.	Kayne Anderson Energy Total Return Fund, Inc.; OSI Systems, Inc.; Big Dog Holdings, Inc.; and California Pizza Kitchen, Inc.
Gerald I. Isenberg c/o Kayne Anderson Capital Advisors, L.P. 1800 Avenue of the Stars, 2nd Floor Los Angeles, CA 90067 (born 1940)	Director	3-year term (until the 2008 Annual Meeting of Stockholders)/served since June 2005	Adjunct Professor and Tenured Professor at the University of Southern California School of Cinema-Television since 2007 and 1995, respectively. Chief Financial Officer of Teeccino Caffe Inc., a privately owned beverage manufacturer and distributor. Board member of	Kayne Anderson Energy Total Return Fund, Inc; Teeccino Caffe Inc.; the Caucus of Producers, Writers and Directors Foundation

Kayne Anderson Rudnick Mutual Funds⁽²⁾ from 1998 to 2002.

Michael C. Morgan c/o Kayne Anderson Capital Advisors, L.P. 1800 Avenue of the Stars, 2nd Floor Los Angeles, CA 90067 (born 1968)	Director	3-year term (until the 2010 Annual Meeting of Stockholders)/served since May 2007	President and Chief Executive Officer Portcullis Partners, LP, a privately owned investment partnership, since 2005. Adjunct Professor in the Practice of Management at the Jones Graduate School of Management at Rice University since 2003. President of Kinder Morgan, Inc., an energy transportation and storage company, and of Kinder Morgan Energy Partners, LP, a publicly traded pipeline limited partnership, from 2001 to 2004.	Kayne Anderson Energy Total Return Fund, Inc.; Knight, Inc. (f.k.a. Kinder Morgan, Inc.)
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KAYNE ANDERSON MLP INVESTMENT COMPANY

**INFORMATION CONCERNING DIRECTORS AND CORPORATE OFFICERS (CONTINUED)
(UNAUDITED)**

Name, Address (Year Born)	Position(s) Held with Registrant	Term of Office/ Time of Service	Principal Occupations During Past Five Years	Other Directorships Held by Director/Officer
Interested Director⁽¹⁾ and Corporate Officers				
Kevin S. McCarthy ⁽³⁾ c/o KA Fund Advisors, LLC 717 Texas Street, Suite 3100, Houston, TX 77002 (born 1959)	Chairman of the Board of Directors; President and Chief Executive Officer	3-year term as a director (until the 2009 Annual Meeting of Stockholders), elected annually as an officer/ served since July 2004	Senior Managing Director of KACALP since June 2004 and of KAFA since 2006. From November 2000 to May 2004, Global Head of Energy at UBS Securities LLC. President and Chief Executive Officer of Kayne Anderson Total Energy Return Fund, Inc. (KYE) and Kayne Anderson Energy Development Company (KED).	Kayne Anderson Energy Total Return Fund, Inc.; Kayne Anderson Energy Development Company; Range Resources Corporation; Clearwater Natural Resources, L.L.C.; Direct Fuels Partners, L.P.
Terry A. Hart c/o KA Fund Advisors, LLC 717 Texas Street Suite 3100, Houston, TX 77002 (born 1969)	Chief Financial Officer and Treasurer	Elected annually/served since December 2005	Chief Financial Officer and Treasurer of KYE since December 2005 and of KED since September 2006. Director of Structured Finance, Assistant Treasurer and most recently as Senior Vice President and Controller of Dynergy, Inc. from 2000 to 2005.	None
David J. Shladovsky c/o Kayne Anderson Capital Advisors, L.P. 1800 Avenue of the Stars, 2nd Floor Los Angeles, CA 90067 (born 1960)	Secretary and Chief Compliance Officer	Elected annually/served since inception	Managing Director and General Counsel of KACALP since 1997 and of KAFA since 2006. Secretary and Chief Compliance Officer of KYE since 2005 and KED since 2006.	None
J.C. Frey c/o Kayne Anderson	Vice President,	Elected annually/served	Senior Managing Director of KACALP since 2004, and of	None

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Capital Advisors, L.P. 1800 Avenue of the Stars, 2nd Floor Los Angeles, CA 90067 (born 1968)	Assistant Treasurer and Assistant Secretary	as Assistant Treasurer and Assistant Secretary since inception and served as Vice President since June 2005	KAFA since 2006 and as a Managing Director of KACALP since 2001. Portfolio Manager of Kayne Anderson since 2000 and Portfolio Manager, Vice President, Assistant Secretary and Assistant Treasurer of KYE since 2005 and of KED since 2006.
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KAYNE ANDERSON MLP INVESTMENT COMPANY

**INFORMATION CONCERNING DIRECTORS AND CORPORATE OFFICERS (CONCLUDED)
(UNAUDITED)**

Name, Address (Year Born)	Position(s) Held with Registrant	Term of Office/ Time of Service	Principal Occupations During Past Five Years	Other Directorships Held by Director/Officer
James C. Baker c/o KA Fund Advisors, LLC 717 Texas Street, Suite 3100, Houston, TX 77002 (born 1972)	Vice President	Elected annually/served since June 2005	Senior Managing Director of KACALP and has served since December 2004 and of KAFA since 2006. Vice President of KYE since 2005 and of KED since 2006. Director in Planning and Analysis at El Paso Corporation from April 2004 to December 2004. Director at UBS Securities LLC (energy investment banking group) from 2002 to 2004 and Associate Director from 2000 to 2002.	ProPetro Services, Inc.

- (1) Each Director oversees two registered investment companies in the fund complex.
- (2) The investment adviser to the Kayne Anderson Rudnick Mutual Funds, Kayne Anderson Rudnick Investment Management, LLC, formerly was an affiliate of Kayne Anderson.
- (3) Mr. McCarthy is an interested person of Kayne Anderson MLP Investment Company by virtue of his employment relationship with Kayne Anderson, investment adviser of the Company.

Additional information regarding the Company's directors is contained in the Company's Statement of Additional Information, the most recent version of which can be found on the Company's website at <http://www.kaynefunds.com> or is available without charge, upon request, by calling (877) 657-3863/MLP-FUND.

KAYNE ANDERSON MLP INVESTMENT COMPANY

**ANNUAL CERTIFICATION
(UNAUDITED)**

The Company's Chief Executive Officer has filed an annual certification with the NYSE that, as of the date of the certification, he was unaware of any violation by the Company of the NYSE's corporate governance listing standards.

**PROXY VOTING AND PORTFOLIO HOLDINGS INFORMATION
(UNAUDITED)**

The policies and procedures that the Company uses to determine how to vote proxies relating to its portfolio securities are available:

without charge, upon request, by calling (877) 657-3863/MLP-FUND;

on the Company's website, <http://www.kaynefunds.com>; or

on the website of the Securities and Exchange Commission, <http://www.sec.gov>.

Information regarding how the Company voted proxies relating to portfolio securities during the most recent 12-month period ended June 30 is available without charge, upon request, by calling (877) 657-3863/MLP-FUND, and on the SEC's website at <http://www.sec.gov> (see Form N-PX).

The Company files a complete schedule of its portfolio holdings for the first and third quarters of its fiscal year with the SEC on Form N-Q. The Company's Forms N-Q are available on the SEC's website at <http://www.sec.gov> and may be reviewed and copied at the SEC's Public Reference Room in Washington, DC. Information on the operation of the SEC's Public Reference Room may be obtained by calling 1-202-551-8090. The Company also makes its Forms N-Q available on its website at <http://www.kaynefunds.com>.

Directors and Corporate Officers

Kevin S. McCarthy

Chairman of the Board of Directors, President and Chief Executive Officer

Anne K. Costin

Director

Steven C. Good

Director

Gerald I. Isenberg

Director

Michael C. Morgan

Director

Terry A. Hart

Chief Financial Officer and Treasurer

David J. Shladovsky

Secretary and Chief Compliance Officer

J.C. Frey

Vice President, Assistant Secretary and Assistant Treasurer

James C. Baker

Vice President

Investment Adviser

KA Fund Advisors, LLC
717 Texas Avenue, Suite 3100
Houston, TX 77002

Administrator

Bear Stearns Funds Management Inc.
383 Madison Avenue
New York, NY 10179

1800 Avenue of the Stars, Second Floor
Los Angeles, CA 90067

Stock Transfer Agent and Registrar

American Stock Transfer & Trust Company
59 Maiden Lane
New York, NY 10038

Custodian

Custodial Trust Company
101 Carnegie Center
Princeton, NJ 08540

Independent Registered Public Accounting Firm

PricewaterhouseCoopers LLP
350 South Grand Avenue
Los Angeles, CA 90071

Legal Counsel

Paul, Hastings, Janofsky & Walker LLP
55 Second Street, 24th Floor
San Francisco, CA 94105

For stockholder inquiries, registered stockholders should call (800) 937-5449. For general inquiries, please call (877) 657-3863/MLP-FUND; or visit us on the web at <http://www.kaynefunds.com>.

This report, including the financial statements herein, is made available to stockholders of the Company for their information. It is not a prospectus, circular or representation intended for use in the purchase or sale of shares of the Company or of any securities mentioned in this report.

Item 2. Code of Ethics.

(a) As of the end of the period covered by this report, the Registrant has adopted a code of ethics that applies to the Registrant's principal executive officer, principal accounting officer, and persons performing similar functions.
 (c) and (d). During the period covered by this report, there was no amendment to, and no waiver granted from, any provision of the code of ethics that applies to the Registrant's principal executive officer, principal accounting officer, and persons performing similar functions.
 (f)(1) Pursuant to Item 12(a)(1), the Registrant is attaching as an exhibit (EX-99.CODE ETH) a copy of its code of ethics that applies to its principal executive officer, principal financial officer, and persons performing similar functions.

Item 3. Audit Committee Financial Expert.

(a)(1) The Registrant's board of directors has determined that the Registrant has three audit committee financial experts serving on its audit committee.
 (a)(2) The audit committee financial experts are Steven C. Good, Gerald I. Isenberg and Michael C. Morgan. Messrs. Good, Isenberg and Morgan are independent for purposes of this Item.

Item 4. Principal Accountant Fees and Services.

(a) through (d). The information in the table below is provided for services rendered to the registrant by its independent registered public accounting firm, PricewaterhouseCoopers LLP, during the Registrant's (a) last fiscal year ended November 30, 2007, and (b) fiscal year ended November 30, 2006.

	2007	2006
Audit Fees	\$ 239,000	\$ 221,000
Audit-related Fees		
Tax	178,000	170,000
Other		
Total	\$ 417,000	\$ 391,000

(e)(1) Audit Committee Pre-Approval Policies and Procedures.

Before the auditor is (i) engaged by the Registrant to render audit, audit related or permissible non-audit services to the Registrant or (ii) with respect to non-audit services to be provided by the auditor to the

Registrant's investment adviser or any entity in the investment Registrant complex, if the nature of the services provided relate directly to the operations or financial reporting of the Registrant, either: (a) the Audit Committee shall pre-approve such engagement; or (b) such engagement shall be entered into pursuant to pre-approval policies and procedures established by the Audit Committee. Any such policies and procedures must be detailed as to the particular service and not involve any delegation of the Audit Committee's responsibilities to the Registrant's investment adviser. The Audit Committee may delegate to one or more of its members the authority to grant pre-approvals. The pre-approval policies and procedures shall include the requirement that the decisions of any member to whom authority is delegated under this provision shall be presented to the full Audit Committee at its next scheduled meeting. Under certain limited circumstances, pre-approvals are not required if certain de minimis thresholds are not exceeded, as such thresholds are set forth by the Audit Committee and in accordance with applicable SEC rules and regulations.

(e)(2) None of the services provided to the Registrant described in paragraphs (b)-(d) of Item 4 were pre-approved by the Audit Committee pursuant to paragraph (c)(7)(i)(C) of Rule 2-01 of regulation S-X.

(f) No disclosures are required by this Item 4(f).

(g) The aggregate non-audit fees billed by PricewaterhouseCoopers LLP for services rendered to the Registrant for each of the last two fiscal years were \$178,000 for the fiscal year ended November 30, 2007 and \$170,000 for the fiscal year ended November 30, 2006. There were no non-audit fees billed by PricewaterhouseCoopers LLP for services rendered to the Registrant's investment adviser (not including any sub-advisor whose role is primarily portfolio management and is subcontracted with or overseen by another investment adviser) or any entity controlling, controlled by, or under common control with the investment adviser that provides ongoing services to the Registrant for each of the last two fiscal years.

(h) No disclosures are required by this Item 4(h).

Item 5. Audit Committee of Listed Registrants.

The Registrant has a separately-designated standing audit committee established in accordance with Section 3(a)(58)(A) of the Securities and Exchange Act of 1934, as amended. Steven C. Good (Chair), Michael C. Morgan and Gerald I. Isenberg are the members of the Registrant's audit committee.

Item 6. Schedule of Investments.

Please see the schedule of investments contained in the Report to Stockholders included under Item 1 of this Form N-CSR.

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

The Registrant has delegated the voting of proxies relating to its voting securities to its investment adviser. Effective December 31, 2006, Kayne Anderson Capital Advisors, L.P. assigned its investment management agreement to its subsidiary, KA Fund Advisors, LLC (the Adviser). That assignment occurred only for internal organizational purposes and did not result in any change of corporate officers, portfolio management personnel or control. The respective Proxy Voting Policies and Procedures of the Registrant and the Adviser are attached as Exhibit 99.VOTEREG and Exhibit 99.VOTEADV hereto.

Item 8. Portfolio Managers of Closed-End Management Investment Companies.

(a)(1) As of November 30, 2007, the following individuals (the Portfolio Managers) are primarily responsible for the day-to-day management of the Registrant's portfolio:

Kevin S. McCarthy is Registrant's Chief Executive Officer and co-portfolio manager and he has served as the Chief Executive Officer and co-portfolio manager of Kayne Anderson Energy Total Return Fund, Inc. since May 2005 and of Kayne Anderson Energy Development Company since September 2006. Mr. McCarthy has served as a Senior Managing Director at Kayne Anderson Capital Advisors, L.P. since June 2004 and of KA Fund Advisors, LLC (collectively with Kayne Anderson Capital Advisors, L.P., Kayne Anderson) since 2006. Prior to that, he was Global Head of Energy at UBS Securities LLC. In this role, he had senior responsibility for all of UBS's energy investment banking activities. Mr. McCarthy was with UBS Securities from 2000 to 2004. From 1995 to 2000, Mr. McCarthy led the energy investment banking activities of Dean Witter Reynolds and then PaineWebber Incorporated. He began his investment banking career in 1984. He earned a BA degree in Economics and Geology from Amherst College in 1981, and an MBA degree in Finance from the University of Pennsylvania's Wharton School in 1984.

J.C. Frey is Registrant's Vice President, Assistant Secretary, Assistant Treasurer and co-portfolio manager and a Senior Managing Director of Kayne Anderson. He serves as portfolio manager of Kayne Anderson's funds investing in MLP securities, including service as a co-portfolio manager, Vice President, Assistant Secretary and Assistant Treasurer of Kayne Anderson Energy Total Return Fund, Inc. since May 2005 and Kayne Anderson Energy Development Company since September 2006. Mr. Frey began investing in MLPs on behalf of Kayne Anderson in 1998 and has served as portfolio manager of Kayne Anderson's MLP funds since their inception in 2000. Prior to joining Kayne Anderson in 1997, Mr. Frey was a CPA and audit manager in KPMG Peat Marwick's financial services group, specializing in banking and finance clients, and loan securitizations. Mr. Frey graduated from Loyola Marymount University with a BS degree in Accounting in 1990. In 1991, he received a Master's degree in Taxation from the University of Southern California.

(a)(2)(i) & (ii) Other Accounts Managed by Portfolio Managers:

The following table reflects information regarding accounts for which the Portfolio Managers have day-to-day management responsibilities (other than the Registrant). Accounts are grouped into three categories: (i) registered investment companies, (ii) other pooled investment accounts, and (iii) other accounts. To the extent that any of these accounts pay advisory fees that are based on account performance, this information will be reflected in a separate table below. Information is shown as of November 30, 2007. Asset amounts are approximate and have been rounded.

Portfolio Manager	Registered Investment Companies (excluding us)		Other Pooled Investment Vehicles		Other Accounts	
	Number of Accounts	Total Assets in the Accounts (\$ in billions)	Number of Accounts	Total Assets in the Accounts (\$ in billions)	Number of Accounts	Total Assets in the Accounts (\$ in billions)
Kevin McCarthy	1	\$1.3	0	N/A	0	N/A
J.C. Frey	1	\$1.3	1	\$0.0	0	N/A

(a)(2)(iii) Other Accounts

That Pay
Performance-Based
Advisory Fees
Managed by
Portfolio Managers:

The following table reflects information regarding accounts for which the Portfolio Managers have day-to-day management responsibilities (other than the Registrant) and with respect to which the advisory fee is based on account performance. Information is shown as of November 30, 2007. Asset amounts are approximate and have been rounded.

Portfolio Manager	Registered(1) Investment Companies (excluding us)		Other Pooled Investment Vehicles		Other Accounts	
	Number of Accounts	Total Assets in the Accounts (\$ in billions)	Number of Accounts	Total Assets in the Accounts (\$ in billions)	Number of Accounts	Total Assets in the Accounts (\$ in billions)
Kevin McCarthy	1	\$0.4	0	N/A	0	N/A
J.C. Frey	1	\$0.4	9	\$2.2	2	\$0.1

(1) Messrs. McCarthy and Frey serve as portfolio manager of KED, a closed end management investment company that has elected to be treated as a business

development
company. For
purposes of this
table, KED is
included in the
information
contained in this
column, even
though it is not a
registered
investment
company.

(a)(2)(iv) Conflicts of Interest:

Some of the other accounts managed by Messrs. McCarthy and Frey have investment strategies that are similar to that of the Registrant. However, Kayne Anderson manages potential conflicts of interest by allocating investment opportunities in accordance with its written allocation policies and procedures.

(a)(3) Compensation, as of November 30, 2007:

Messrs. McCarthy and Frey are compensated by Kayne Anderson through partnership distributions from Kayne Anderson, based on the amount of assets they manage and they receive a portion of the advisory fees applicable to those accounts, which, with respect to certain accounts, as noted above, are based in part on the performance of those accounts, and which in the case of the Registrant's performance, is measured against an Index. Additional benefits received by Messrs. McCarthy and Frey are normal and customary benefits provided by investment advisers.

(a)(4) As of November 30, 2007, the end of the Registrant's most recently completed fiscal year, the dollar range of equity securities beneficially owned by each portfolio manager in the Registrant is shown below:

Kevin McCarthy: - **over \$1,000,000**

J.C. Frey: **\$100,001 - \$500,000**

Through their limited partnership interests in Kayne Anderson Capital Advisors, L.P., which owns shares of Registrant's common stock, Messrs. McCarthy and Frey could be deemed to also indirectly own a portion of Registrant's securities.

(b) Not Applicable.

Item 9. Purchases of Equity Securities by Closed-End Management Companies and Affiliated Purchasers.

None.

Item 10. Submission of Matters to a Vote of Security Holders.

None.

Item 11. Controls and Procedures.

(a) The Registrant's principal executive officer and principal financial officer have evaluated the Registrant's disclosure controls and procedures as of a date within 90 days of this filing and have concluded that the Registrant's disclosure controls and procedures are effective, as of such date, in ensuring that information required to be disclosed by the registrant in this Form N-CSR was recorded, processed, summarized, and reported timely.

(b) The Registrant's principal executive officer and principal financial officer are aware of no changes in the Registrant's internal control over financial reporting that occurred during the Registrant's last fiscal half-year that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting.

Item 12. Exhibits.

(a)(1) Code of Ethics attached hereto as EX-99.CODE ETH.

(a)(2) Separate certifications of Principal Executive and Financial Officers pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 attached hereto as EX-99.CERT.

(b) Certification of Principal Executive and Financial Officers pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 furnished as EX-99.906 CERT.

(99) Proxy Voting Policies of the Registrant attached hereto as EX-99.VOTEREG.

(99) Proxy Voting Policies of the Adviser attached hereto as EX-99.VOTEADV.

SIGNATURES

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.

Kayne Anderson MLP Investment Company

By: /S/ KEVIN S. MCCARTHY
Kevin S. McCarthy
Chairman, President and Chief Executive
Officer

Date: February 7, 2008

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

By: /S/ KEVIN S. MCCARTHY
Kevin S. McCarthy
Chairman, President and Chief Executive
Officer

Date: February 7, 2008

By: /S/ TERRY A. HART
Terry A. Hart
Chief Financial Officer and Treasurer

Date: February 7, 2008