

Kayne Anderson MLP Investment CO
Form N-30B-2
April 25, 2008

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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
SCHEDULE OF INVESTMENTS
FEBRUARY 29, 2008
(amounts in 000 s)
(UNAUDITED)

Description	No. of Shares/Units	Value
Long-Term Investments	168.0%	
Equity Investments(a)(b)	167.5%	
Midstream MLP	129.4%	
Atlas Pipeline Partners, L.P.	417	\$ 18,486
Boardwalk Pipeline Partners, LP	522	12,375
Buckeye Partners, L.P.(c)	156	7,642
Copano Energy, L.L.C.	3,429	125,002
Copano Energy, L.L.C. Class E Units(d)(e)	157	4,997
Crosstex Energy, L.P.	2,963	93,664
DCP Midstream Partners, LP	142	5,163
Duncan Energy Partners L.P.	193	4,077
Eagle Rock Energy Partners, L.P.	134	2,007
El Paso Pipeline Partners, L.P.	774	18,152
Enbridge Energy Management, L.L.C.(f)	669	34,983
Enbridge Energy Partners L.P.	1,400	69,957
Energy Transfer Partners, L.P.	3,875	185,673
Enterprise Products Partners L.P.	5,279	163,481
Global Partners LP(c)	1,452	39,671
Hiland Partners, LP	162	8,206
Holly Energy Partners, L.P.	209	8,582
Kinder Morgan Management, LLC(f)	2,719	148,237
Magellan Midstream Partners, L.P.	3,636	157,486
MarkWest Energy Partners, L.P.	2,183	75,309
Martin Midstream Partners L.P.	295	9,999
NuStar Energy L.P.	463	24,754
ONEOK Partners, L.P.	875	54,302
Plains All American Pipeline, L.P.(g)	3,112	148,586
Regency Energy Partners LP	1,949	57,815
SemGroup Energy Partners, L.P.	208	5,183
Spectra Energy Partners, LP	272	6,713
Sunoco Logistics Partners L.P.	100	5,374
Targa Resources Partners LP	398	9,655
TC PipeLines, LP	1,298	44,337
TEPPCO Partners, L.P.	677	25,556
Williams Partners L.P.	453	16,821
Williams Pipeline Partners L.P.(e)	242	4,792

1,597,037

Propane MLP 8.4%

Ferrellgas Partners, L.P.

877

20,079

Inergy, L.P.

2,839

82,939

103,018

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY
SCHEDULE OF INVESTMENTS (CONTINUED)
FEBRUARY 29, 2008
(amounts in 000 s)
(UNAUDITED)

Description	No. of Shares/Units	Value
Shipping MLP 2.4%		
Capital Product Partners L.P.	121	\$ 2,438
K-Sea Transportation Partners L.P.	221	7,974
OSG America L.P.	207	2,904
Teekay LNG Partners L.P.	329	9,895
Teekay Offshore Partners L.P.	263	6,658
		29,869
Coal MLP 5.5%		
Clearwater Natural Resources, LP Unregistered(d)(h)(i)	3,889	51,334
Natural Resource Partners L.P.	236	7,581
Penn Virginia Resource Partners, L.P.	319	8,519
		67,434
Upstream MLP 10.0%		
Atlas Energy Resources, LLC	1,649	54,881
BreitBurn Energy Partners L.P.	1,427	31,430
BreitBurn Energy Partners L.P. Unregistered(d)	556	11,479
Constellation Energy Partners LLC	956	20,067
Dorchester Minerals, L.P.	74	1,571
Legacy Reserves LP	193	4,103
		123,531
MLP Affiliates 8.2%		
Atlas Pipeline Holdings, L.P.	76	2,418
Buckeye GP Holdings L.P.	206	5,773
Crosstex Energy, Inc.	54	1,927
Energy Transfer Equity, L.P.	464	15,440
Enterprise GP Holdings L.P.	1,342	42,175
Hiland Holdings GP, LP	141	3,503
Magellan Midstream Holdings, L.P.	1,147	29,509
		100,745
Other MLP 3.5%		

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Calumet Specialty Products Partners, L.P.	685	20,653
Exterran Partners, L.P.	700	22,956
		43,609
Other 0.1%		
Omega Navigation Enterprises, Inc.	91	1,335
Total Equity Investments (Cost \$1,476,340)		2,066,578

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY
SCHEDULE OF INVESTMENTS (CONCLUDED)
FEBRUARY 29, 2008
(amounts in 000 s)
(UNAUDITED)

Description	Interest Rate	Maturity Date	Principal Amount	Value
Fixed Income Investment 0.5%				
Coal MLP 0.5%				
Clearwater Natural Resources, LP(d)(h) (Cost \$6,142)	(j)	12/03/09	\$ 6,142	\$ 6,142
Total Long-Term Investments (Cost \$1,482,482)				2,072,720
Short-Term Investment 0.0%				
Repurchase Agreement 0.0%				
Bear, Stearns & Co. Inc. (Agreement dated 2/29/08 to be repurchased at \$383), collateralized by \$395 in U.S. Treasury Bonds (Cost \$383)	1.850%	3/03/08		383
Total Investments 168.0% (Cost \$1,482,865)				2,073,103
Liabilities				
Auction Rate Senior Notes				(505,000)
Deferred Taxes				(211,725)
Revolving Credit Line				(21,000)
Other Liabilities				(9,153)
Unrealized Depreciation on Interest Rate Swap Contracts				(31,164)
Total Liabilities				(778,042)
Income Tax Receivable				1,161
Other Assets				12,862
Total Liabilities in Excess of Other Assets				(764,019)
Preferred Stock at Redemption Value				(75,000)
Net Assets Applicable to Common Stockholders				\$ 1,234,084

(a) Unless otherwise noted, equity investments are common units/common shares.

(b) Includes Limited Liability Companies.

- (c) Security or a portion thereof is segregated as collateral on interest rate swap contracts.
- (d) Fair valued securities, restricted from public sale (See Notes 2, 3 and 7).
- (e) 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.
- (f) Distributions are paid in-kind.
- (g) The Company believes that it may be an affiliate of Plains All American, L.P. (See Note 5).
- (h) Clearwater Natural Resources, LP is a privately-held MLP that the Company believes is a controlled affiliate.
- (i) Security is non-income producing.
- (j) Floating rate unsecured working capital term loan. Security pays interest at a rate of the higher of one year LIBOR or 4.75% plus 750 basis points (12.25% as of February 29, 2008).

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY
STATEMENT OF ASSETS AND LIABILITIES
FEBRUARY 29, 2008
(amounts in 000 s, except share and per share amounts)
(UNAUDITED)

ASSETS

Investments at fair value:	
Non-affiliated (Cost \$1,299,744)	\$ 1,872,800
Affiliated (Cost \$109,992)	148,586
Controlled (Cost \$72,746)	51,334
Repurchase agreement (Cost \$383)	383
Total investments (Cost \$1,482,865)	2,073,103
Deposits with brokers	5,465
Receivable for securities sold	754
Interest, dividends and distributions receivable	620
Income tax receivable	1,161
Deferred debt issuance costs and other, net	6,023
Total Assets	2,087,126

LIABILITIES

Revolving credit line	21,000
Investment management fee payable	7,298
Payable for securities purchased	604
Accrued directors' fees and expenses	52
Accrued expenses and other liabilities	1,199
Deferred tax liability	211,725
Unrealized depreciation on interest rate swap contracts	31,164
Total Liabilities before Senior Notes	273,042
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
Total Liabilities	778,042

PREFERRED STOCK

\$25,000 liquidation value per share applicable to 3,000 outstanding shares (10,000 shares authorized)	75,000
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS	\$ 1,234,084
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS CONSIST OF	
Common stock, \$0.001 par value (43,431,362 shares issued and outstanding, 199,990,000 shares authorized)	\$ 43
Paid-in capital	883,833
Accumulated net investment loss, net of income taxes less dividends	(80,631)
Accumulated realized gains on investments and interest rate swap contracts, net of income taxes	79,564
Net unrealized gains on investments and interest rate swap contracts, net of income taxes	351,275
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS	\$ 1,234,084
NET ASSET VALUE PER COMMON SHARE	\$28.41

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY
STATEMENT OF OPERATIONS
FOR THE THREE MONTHS ENDED FEBRUARY 29, 2008
(amounts in 000 s)
(UNAUDITED)

INVESTMENT INCOME**Income**

Dividends and distributions:

Non-affiliated investments	\$ 29,527
Affiliated investment	2,645

Total dividends and distributions	32,172
Return of capital	(28,471)

Net dividends and distributions	3,701
Interest	93

Total Investment Income	3,794
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Expenses

Investment management fees	7,339
Professional fees	247
Administration fees	237
Custodian fees	62
Reports to stockholders	62
Insurance	45
Directors fees	43
Other expenses	170

Total Expenses Before Interest Expense, Auction Agent Fees and Taxes	8,205
Interest expense	8,218
Auction agent fees	367

Total Expenses Before Taxes	16,790
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Net Investment Loss Before Taxes	(12,996)
Deferred tax benefit	4,809

Net Investment Loss	(8,187)
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REALIZED AND UNREALIZED GAINS/(LOSSES)**Net Realized Gains/(Losses)**

Investments	14,879
Payments on interest rate swap contracts	15
Deferred tax expense	(5,511)

Net Realized Gains	9,383
Net Change in Unrealized Gains/(Losses)	
Investments	(60,906)
Interest rate swap contracts	(19,290)
Deferred tax benefit	29,673
Net Change in Unrealized Losses	(50,523)
Net Realized and Unrealized Losses	(41,140)
NET DECREASE IN NET ASSETS RESULTING FROM OPERATIONS	(49,327)
DIVIDENDS TO PREFERRED STOCKHOLDERS	(1,219)
NET DECREASE IN NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS RESULTING FROM OPERATIONS	\$ (50,546)

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 Three Months Ended February 29, 2008 (Unaudited)	For the Fiscal Year Ended November 30, 2007
OPERATIONS		
Net investment loss	\$ (8,187)	\$ (29,965)
Net realized gains	9,383	41,972
Net change in unrealized gains	(50,523)	87,498
Net Increase/(Decrease) in Net Assets Resulting from Operations	(49,327)	99,505
DIVIDENDS/DISTRIBUTIONS TO PREFERRED STOCKHOLDERS		
Dividends		(4,161) ⁽²⁾
Distributions return of capital	(1,219) ⁽¹⁾	
Dividends/Distributions to Preferred Stockholders	(1,219)	(4,161)
DIVIDENDS/DISTRIBUTIONS TO COMMON STOCKHOLDERS		
Dividends		(3,582) ⁽²⁾
Distributions return of capital	(21,397) ⁽¹⁾	(74,759) ⁽²⁾
Dividends/Distributions to Common Stockholders	(21,397)	(78,341)
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 205,813 and 739,797 shares of common stock from reinvestment of distributions, respectively	5,997	23,585
Net Increase in Net Assets Applicable to Common Stockholders from Capital Stock Transactions	5,997	179,635
Total Increase/(Decrease) in Net Assets Applicable to Common Stockholders	(65,946)	196,638

NET ASSETS ATTRIBUTABLE TO COMMON STOCKHOLDERS

Beginning of period	1,300,030	1,103,392
End of period	\$ 1,234,084	\$ 1,300,030

- (1) The information presented in each of these items is an estimate of the characterization of a portion of the total dividends paid to preferred and common stockholders during the three months ended February 29, 2008 as either a dividend (ordinary income) or distribution (return of capital). This estimate is based on the Company's operating results during the period. The actual characterization of the preferred and common stock dividends made during the current year will not be determinable until after the end of the fiscal year when the Company can determine earnings and profits and, therefore, it may differ from the preliminary estimates.
- (2) The information presented in each of these items is a characterization of a portion of the total dividends paid to preferred and common stockholders for the fiscal year ended November 30, 2007 as either dividends (ordinary income) or distributions (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 THREE MONTHS ENDED FEBRUARY 29, 2008
(amounts in 000 s)
(UNAUDITED)

CASH FLOWS FROM OPERATING ACTIVITIES

Net decrease in net assets resulting from operations	\$ (49,327)
Adjustments to reconcile net decrease in net assets resulting from operations to net cash used in operating activities:	
Net deferred tax benefit	(28,971)
Return of capital distributions	28,471
Realized gains	(14,894)
Unrealized losses on investments and interest rate swap contracts	80,196
Purchase of investments	(13,180)
Proceeds from sale of investments	64,438
Purchase of short-term investments, net	(93)
Increase in deposits with brokers	(3,611)
Decrease in receivable for securities sold	28,053
Decrease in interest, dividend and distributions receivables	1,089
Decrease in income tax receivable	1,314
Decrease in deferred debt issuance costs and other	99
Decrease in investment management fee payable	(417)
Decrease in payable for securities purchased	(124)
Decrease in accrued expenses and other liabilities	(424)
Net Cash Provided by Operating Activities	92,619

CASH FLOWS FROM FINANCING ACTIVITIES

Repayment on revolving credit line	(76,000)
Cash distributions paid to preferred stockholders	(1,219)
Cash distributions paid to common stockholders	(15,400)
Net Cash Used in Financing Activities	(92,619)

NET CHANGE IN CASH**CASH BEGINNING OF PERIOD****CASH END OF PERIOD**

\$

Supplemental disclosure of cash flow information:

Noncash financing activities not included herein consist of reinvestment of distributions of \$5,997 pursuant to the Company's dividend reinvestment plan.

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During the three months ended February 29, 2008, federal and state tax refunds of \$1,314 were received and interest paid was \$8,765

See accompanying notes to financial statements.

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

	For the Three Months	For the Fiscal Year			For the Period September 28, 2004⁽¹⁾
	Ended February 29, 2008	Ended			through November 30, 2004
	(Unaudited)	2007	2006	2005	
Per Share of Common Stock					
Net asset value, beginning of period	\$ 30.08	\$ 28.99	\$ 25.07	\$ 23.91	\$ 23.70 ⁽²⁾
Income from Operations⁽³⁾					
Net investment income/(loss)	(0.19)	(0.73)	(0.62)	(0.17)	0.02
Net realized and unrealized gain on investments, securities sold short, options and interest rate swap contracts	(0.95)	3.58	6.39	2.80	0.19
Total income from investment operations	(1.14)	2.85	5.77	2.63	0.21
Dividends/Distributions Preferred Stockholders⁽³⁾					
Dividends		(0.10) ⁽⁴⁾	(4)	(0.05) ⁽⁴⁾	
Distributions	(0.03)	(4)	(0.10) ⁽⁴⁾	(4)	
Total dividends/distributions Preferred Stockholders	(0.03)	(0.10)	(0.10)	(0.05)	
Dividends/Distributions Common Stockholders					
Dividends		(0.09) ⁽⁴⁾	(4)	(0.13) ⁽⁴⁾	
Distributions	(0.50)	(1.84) ⁽⁴⁾	(1.75) ⁽⁴⁾	(1.37) ⁽⁴⁾	

Total dividends/distributions Common Stockholders	(0.50)	(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 underwriting discounts and offering costs		0.26		0.11	
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	\$ 28.41	\$ 30.08	\$ 28.99	\$ 25.07	\$ 23.91
Market value per share of common stock, end of period	\$ 29.55	\$ 28.27	\$ 31.39	\$ 24.33	\$ 24.90
Total investment return based on common stock market value ⁽⁵⁾	6.3%	(4.4)%	37.9%	3.7%	(0.4)%
Supplemental Data and Ratios⁽⁶⁾					
Net assets applicable to common stockholders, end of period	\$ 1,234,084	\$ 1,300,030	\$ 1,103,392	\$ 932,090	\$ 792,836
Ratio of expenses to average net assets, including current and deferred income taxes	(3.8)% ⁽⁷⁾	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	5.3% ⁽⁷⁾	4.8% ⁽⁷⁾	5.1% ⁽⁷⁾	2.3% ⁽⁷⁾	1.2% ⁽⁷⁾
Ratio of expenses, excluding taxes and interest expenses, to average net assets	2.6% (2.6)%	2.5% (2.3)%	3.4% (2.4)%	1.5% (0.7)%	% 0.5%

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Ratio of net investment income/(loss) to average net assets					
Net increase/(decrease) in net assets to common stockholders resulting from operations to average net assets	(4.0)% ⁽⁸⁾	7.3%	21.7%	10.0%	0.9% ⁽⁸⁾
Portfolio turnover rate	0.6% ⁽⁹⁾	10.6% ⁽⁹⁾	10.0% ⁽⁹⁾	25.6% ⁽⁹⁾	11.8% ⁽⁹⁾
Auction Rate Senior Notes outstanding, end of period	\$ 505,000	\$ 505,000	\$ 320,000	\$ 260,000	
Revolving credit line	\$ 21,000	\$ 97,000	\$ 17,000		
Auction Rate Preferred Stock, end of period	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	
Asset coverage of Auction Rate Senior Notes Dividend Payment Test ⁽¹⁰⁾	359.2%	372.3%	468.3%	487.3%	
Asset Coverage of Auction Rate Senior Notes Debt Incurrence Test ⁽¹¹⁾	348.9%	328.4%	449.7%	487.3%	
Asset coverage of Auction Rate Preferred Stock ⁽¹²⁾	305.3%	292.0%	367.8%	378.2%	
Average amount of borrowings outstanding per share of common stock during the period	\$ 13.40 ⁽³⁾	\$ 12.14 ⁽³⁾	\$ 8.53 ⁽³⁾	\$ 5.57 ⁽³⁾	

See accompanying notes to financial statements.

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

- (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.
- (3) Based on average shares of common stock outstanding of 43,336,371; 41,134,949; 37,638,314; 34,077,731 and 33,165,900, for the three months ended February 29, 2008, fiscal years ended November 30, 2007, November 30, 2006, 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 three months ended February 29, 2008 and 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 three months ended February 29, 2008, the Company's deferred tax benefit was \$34,482 and deferred tax expense was \$5,511. 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 three months ended February 29, 2008, calculated based on purchases of 13,180 and 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 \$2,146,288; \$2,121,931; \$1,456,695; \$1,029,035 and \$143,328, respectively.
- (10) Calculated pursuant to section 18(a)(1)(B) of the 1940 Act. Represents the value of total assets less all liabilities not represented by Auction Rate Senior Notes or any other senior securities representing

indebtedness divided by the aggregate amount of Auction Rate Senior Notes and any other securities representing indebtedness. Under the 1940 Act, the Company may not declare or make any distribution on its common stock and preferred stock if at the time of such declaration, asset coverage with respect to senior securities representing indebtedness would be less than 300% and 200%, respectively. For purposes of this test the revolving credit line is not considered a senior security representing indebtedness.

- (11) Calculated pursuant to section 18(a)(1)(A) of the 1940 Act. Represents the value of total assets less all liabilities not represented by Auction Rate Senior Notes or any other senior securities representing indebtedness divided by the aggregate amount of Auction Rate Senior Notes and any other senior securities representing indebtedness. Under the 1940 Act, the Company may not incur additional indebtedness if at the time of such incurrence asset coverage with respect to senior securities representing indebtedness would be less than 300%. For purposes of this test the revolving credit line is considered a senior security representing indebtedness.
- (12) Calculated pursuant to section 18(a)(2)(A) and section 18(a)(2)(B) of the 1940 Act. Represents the value of total assets less all liabilities not represented by Auction Rate Senior Notes, any other senior securities representing indebtedness, or Auction Rate Preferred Stock divided by the aggregate amount of Auction Rate Senior Notes, any other senior securities representing indebtedness and Auction Rate Preferred Stock. Under the 1940 Act, the Company may not declare or make any distribution on its common stock nor can it incur additional Preferred Stock if at the time of such declaration or incurrence its asset coverage with respect to all senior securities would be less than 200%. For purposes of this test the revolving credit line is considered a senior security representing indebtedness.

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY
NOTES TO FINANCIAL STATEMENTS
FEBRUARY 29, 2008
(amounts in 000 \$, except option contracts written, share and per share amounts)
(UNAUDITED)

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. Currently, the Company calculates its NAV on a weekly basis and such calculation is made available on its website, www.kaynefunds.com. 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

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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 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.

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

SFAS No. 157. In September 2006, the Financial Accounting Standards Board (FASB) issued Statement on 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.

At February 29, 2008, the Company held 6.0% of its net assets applicable to common stockholders (3.5% of total assets) in securities valued at fair value as determined pursuant to procedures adopted by the Board of Directors, with fair value of \$73,952. Although these securities may be resold in privately negotiated transactions

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(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.

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 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 February 29, 2008, 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 February 29, 2008, 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 three months ended February 29, 2008, 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 \$28,471 of dividends and distributions received from MLPs. The return of capital of \$28,471, 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 \$1,681 and \$26,790, 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

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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 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 10 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.

As of December 1, 2007, the Company adopted 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 adoption of the interpretation did not have a material effect on the Company's net asset value. The Company's policy is to classify interest and penalties associated with underpayment of federal and state income taxes, if any, as income tax expense on its Statement of Operations. As of February 29, 2008, the Company does not have any interest

or penalties associated with the underpayment of any income taxes. All tax years since inception remain open and subject to examination by tax jurisdictions.

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.

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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 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. Fair Value

SFAS No. 157. 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. However, the adoption of the standard does require the Company to provide additional disclosures about the inputs used to develop the measurements and the effect of certain measurements on changes in net assets for the reportable periods as contained in the Company's periodic filings.

SFAS No. 157 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into the following three broad categories.

Level 1 Quoted unadjusted prices for identical instruments in active markets to which the Company has access at the date of measurement.

Level 2 Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets. Level 2 inputs are those in markets for which there are few transactions, the prices are not current, little public information exists or instances where prices vary

substantially over time or among brokered market makers.

Level 3 Model derived valuations in which one or more significant inputs or significant value drivers are unobservable. Unobservable inputs are those inputs that reflect the Company's own assumptions that market participants would use to price the asset or liability based on the best available information.

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The following table presents our assets and liabilities measured at fair value on a recurring basis at February 29, 2008.

Assets at Fair Value	Total	Quoted Prices in Active Markets (Level 1)	Prices with Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Long-Term Investments	\$ 2,072,720	\$ 1,998,768		\$ 73,952
<u>Liabilities at Fair Value</u>				
Unrealized depreciation on interest rate swaps	\$ 31,164		\$ 31,164	

The following table presents our assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) at November 30, 2007 and at February 29, 2008.

Assets at Fair Value Using Unobservable Inputs (Level 3)	Long-Term Investments
Balance November 30, 2007	\$ 195,919
Transfers out of Level 3	(138,188)
Realized gains (losses)	
Unrealized gains, net	10,079
Purchases, issuances or settlements	6,142
Balance February 29, 2008	\$ 73,952

The \$10,079 of unrealized gains, presented in the table above relate to investments that are still held at February 29, 2008, and the Company presents these unrealized gains on the Statement of Operations Net Change in Unrealized Gains/(Losses).

The Company did not have any liabilities that were measured at fair value on a recurring basis using significant unobservable inputs (Level 3) at November 30, 2007 and at February 29, 2008.

4. 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.

5. 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.

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NOTES TO FINANCIAL STATEMENTS (UNAUDITED) (CONTINUED)

For the three months ended February 29, 2008, 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.

Clearwater Natural Resources, LP At February 29, 2008, the Company held approximately 42.5% of the limited 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. Based on the totality of the facts and circumstances as they exist as of February 29, 2008, the Company believes that it controls and is an affiliate of Clearwater. During the three months ended February 29, 2008, there were no purchases or sales of this security.

Plains All American, L.P. Robert V. Sinnott is a senior executive of Kayne Anderson Capital Advisors, L.P. (KACALP), the managing member of KAFA. Mr. Sinnott also serves as a director on the board of Plains All American GP LLC, the general partner of Plains All American Pipeline, L.P. Members of senior management and various advisory clients of KACALP and KAFA own units of Plains All American GP LLC. Various advisory clients of KACALP and KAFA, including the Company, own units in Plains All American Pipeline, L.P. The Company believes that it may be an affiliate of Plains All American, L.P. under federal securities laws.

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C. *Other Affiliates* For the three months ended February 29, 2008, KA Associates, Inc., an affiliate of Kayne Anderson, did not earn any brokerage commissions from portfolio transactions executed on behalf of the Company.

6. 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 February 29, 2008 are as follows:

Deferred tax assets:	
Organizational costs	\$ (18)
Net operating loss carryforwards	(42,780)
Deferred tax liabilities:	
Net unrealized gains on investment securities and interest rate swap contracts	247,507
Other temporary differences	7,016
Total net deferred tax liability	\$ 211,725

At February 29, 2008, the Company had net operating loss carryforwards of \$115,622. 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 \$56,473 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 February 29, 2008, the cost basis of investments for federal income tax purposes was \$1,373,959. The cost basis of investments includes a \$108,906 reduction in basis attributable to the Company's portion of the allocated losses from its MLP investments. At February 29, 2008, gross unrealized appreciation and depreciation of investments for federal income tax purposes were as follows:

Gross unrealized appreciation of investments	\$ 749,664
Gross unrealized depreciation of investments	(50,520)
Net unrealized appreciation before tax and interest rate swap contracts	699,144
Net unrealized depreciation on interest rate swap contracts	(31,164)
Net unrealized appreciation before tax	667,980
Net unrealized appreciation after tax	\$ 420,828

For the three months ended February 29, 2008, the components of net income tax benefit include \$27,405 and \$1,566 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 was 37.0%. Total income taxes have been computed by applying the Company's effective income tax rate of 37.0% to net investment income, realized and unrealized gains on investments before taxes.

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. The Company's policy is to classify interest and penalties associated with underpayment of federal and state income taxes, if any, as income tax expense on its Consolidated Statement of Operations. As of February 29, 2008, the Company does not have any interest or penalties associated

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NOTES TO FINANCIAL STATEMENTS (UNAUDITED) (CONTINUED)

with the underpayment of any income taxes. All tax years since inception remain open and subject to examination by tax jurisdictions.

7. Restricted Securities

From time to time, certain of the Company's investments may be restricted as to resale. For instance, securities that are not registered under the Securities Act of 1933 and cannot, as a result, be offered for public sale in a non-exempt transaction without first being registered. In other cases, certain of the Company's investments have restrictions such as lock-up agreements that preclude the Company from offering these securities for public sale.

At February 29, 2008 the Company held the following restricted investments:

Investment	Security ⁽¹⁾	Type of Restriction	Number of Units, Principal (\$ (in 000 s))	Acquisition Date	Cost Basis	Fair Value	Fair Value per Unit	Percent of Net Assets	Percent of Total Assets
BreitBurn Energy Partners L.P.	Common Units	(2)	556	10/30/07	\$ 13,442	\$ 11,479	\$ 20.66	0.9%	0.5%
Clearwater Natural Resources, LP	Common Units	(3)	3,889	(4)	72,746	51,334	13.20	4.2	2.5
Clearwater Natural Resources, LP	Term Loan	(3)	\$ 6,142	(5)	6,142	6,142	n/a	0.5	0.3
Copano Energy, L.L.C.	Class E Units	(2)	157	10/19/07	5,000	4,997	31.75	0.4	0.2
					\$ 97,330	\$ 73,952		6.0%	3.5%

(1) Restricted security that represents a Level 3 categorization under SFAS No. 157. Security is valued using inputs reflecting the Company's own assumptions as more fully described in Note 2 Significant Accounting Policies.

(2) Unregistered security.

- (3) Security of a privately-held MLP.
- (4) The Company purchased common units on August 1, 2005 and October 2, 2006.
- (5) The Company purchased principle amounts of \$3,550 and \$2,592 on January 11, 2008 and February 28, 2008, respectively.

8. Investment Transactions

For the three months ended February 29, 2008, the Company purchased and sold securities in the amount of \$13,180 and \$64,438 (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 three months ended February 29, 2008, the average amount outstanding was \$75,615 with a weighted average interest rate of 5.30%. As of February 29, 2008, the Company had outstanding borrowings on the revolving credit line of \$21,000 and the interest rate was 4.14%. Any loans under this line are repayable on demand by the lender at any time. On April 15, 2008, the Company entered into a new revolving credit line (See Note 14).

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

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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.

Holders 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 February 29, 2008 were 6.28%, 6.29%, 6.24%, 6.29% and 6.28%, respectively. The weighted average interest rates for Series A, Series B, Series C, Series E and Series F for the three months ended February 29, 2008, were 5.29%, 5.32%, 6.46%, 5.36% and 5.58%, 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. Under the 1940 Act, the Company may not declare dividends or make other distributions 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 Senior Notes would be less than 300%.

Since February 12, 2008, all five series of the Company's Senior Notes have failed to generate sufficient investor interest at the maximum allowable rates under the terms of the Senior Notes. As a result, the interest rates on the Senior Notes have been set at such maximum rates. Based on the Company's current credit ratings, the maximum rate is equal to 200% of the greater of (a) the AA Composite Commercial Paper Rate or (b) the applicable LIBOR rate.

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.

At February 29, 2008, the Company was in compliance with all covenants required under the Senior Notes agreements.

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 February 29, 2008 was 6.29%. The weighted average dividend rate for the three months ended February 29, 2008, was 6.43%. This rate includes the applicable rate based on the latest results of 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%.

Since February 14, 2008, the Company's Series D auction rate preferred stock has failed to generate sufficient investor interest at the maximum allowable rates under the terms of the preferred stock. As a result, the dividend rate on the preferred stock has been set at such maximum rate. Based on the Company's current credit ratings, the maximum rate is equal to 200% of the greater of (a) the AA Composite Commercial Paper Rate or (b) the applicable LIBOR rate.

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

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 February 29, 2008, the Company has entered into twenty-one interest rate swap contracts with UBS AG as summarized below. For all twenty-one 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%	\$ (38)
3/25/2008	25,000	4.40	(25)
4/7/2008	25,000	4.35	(50)
3/24/2010	25,000	4.65	(1,155)
4/8/2010	25,000	4.55	(1,135)
4/15/2010	35,000	4.45	(1,517)
6/2/2010	30,000	4.12	(1,137)
7/30/2010	25,000	5.20	(1,608)
8/2/2010	25,000	5.05	(1,555)
8/17/2010	50,000	4.95	(2,982)
9/7/2010	25,000	4.75	(1,399)
9/11/2010	25,000	4.65	(1,339)
12/6/2010	50,000	3.85	(1,706)
1/24/2011	50,000	3.20	(782)
4/1/2011 ⁽¹⁾	85,000	3.77	(2,664)
2/28/2012	40,000	4.99	(3,079)
4/16/2012	25,000	4.65	(1,625)

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5/9/2012	25,000	4.37	(1,348)
8/16/2012	50,000	5.15	(4,353)
11/14/2013	10,000	5.00	(848)
11/16/2013	10,000	4.95	(819)
Total	\$ 695,000		\$ (31,164)

(1) Represents a forward starting interest rate swap contract beginning in April 2008 which was added to replace the interest rate swap contracts that expired on March 25, 2008 and April 7, 2008.

KAYNE ANDERSON MLP INVESTMENT COMPANY
NOTES TO FINANCIAL STATEMENTS (UNAUDITED) (CONCLUDED)

At February 29, 2008, the weighted average duration of the interest rate swap contracts was 2.7 years and the weighted average fixed rate was 4.42%.

13. Common Stock

The Company has 199,990,000 shares of common stock authorized and 43,431,362 shares outstanding at February 29, 2008. As of that date, KACALP owned 4,000 shares. Transactions in common shares for the three months ended February 29, 2008, were as follows:

Shares outstanding at November 30, 2007	43,225,549
Shares issued through reinvestment of distributions	205,813
Shares outstanding at February 29, 2008	43,431,362

14. Subsequent Events

On March 5, 2008, the Company closed on the purchase of Clearwater's general partner from the partnership's management team that was in place at the time for \$1,046. Based on this purchase, the Company believes that it controls and is an affiliate of Clearwater.

On April 11, 2008, the Company paid a dividend to its common stockholders in the amount of \$0.4975 per share, for a total of \$21,607. Of this total, pursuant to the Company's dividend reinvestment plan, \$5,987 was reinvested into the Company, and in connection with that reinvestment 217,393 shares of common stock were issued.

On April 15, 2008, the Company entered into a new \$200 million unsecured revolving credit facility. The facility has a 364-day commitment terminating on April 14, 2009 that may be extended for additional non-overlapping 364-day periods if mutually agreed upon. Outstanding loan balances will accrue interest daily at a rate equal to the one-month LIBOR plus 1.65 percent. The Company will pay a fee equal to a rate of 0.50 percent on any unused amounts of the credit facility.

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

William H. Shea Jr.

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

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