

Kayne Anderson MLP Investment CO
Form N-30B-2
October 30, 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.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
SCHEDULE OF INVESTMENTS
AUGUST 31, 2008
(amounts in 000 s)
(UNAUDITED)

Description	No. of Shares/Units	Value
Long-Term Investments 161.1%		
Equity Investments(a) 160.2%		
Midstream MLP(b) 108.8%		
Atlas Pipeline Partners, L.P.	755	\$ 25,765
Copano Energy, L.L.C.	3,429	108,472
Copano Energy, L.L.C. Unregistered, Class E Units(c)(d)	157	4,792
Crosstex Energy, L.P.	2,963	75,470
DCP Midstream Partners, LP	250	6,120
Duncan Energy Partners L.P.	213	3,852
Eagle Rock Energy Partners, L.P.	201	2,857
El Paso Pipeline Partners, L.P.	724	13,372
Enbridge Energy Partners L.P.	1,418	68,851
Energy Transfer Partners, L.P.	3,514	156,375
Enterprise Products Partners L.P.	4,963	146,175
Global Partners LP(e)	1,465	18,210
Hiland Partners, LP	162	7,447
Holly Energy Partners, L.P.	184	6,199
Magellan Midstream Partners, L.P.	3,199	118,937
MarkWest Energy Partners, L.P.	2,190	75,409
Martin Midstream Partners L.P.	352	11,019
ONEOK Partners, L.P.	823	49,429
Plains All American Pipeline, L.P.(f)	3,112	148,275
Regency Energy Partners LP	1,949	48,575
Spectra Energy Partners, LP	241	5,545
Targa Resources Partners LP	445	10,640
TC PipeLines, LP	1,194	40,786
TEPPCO Partners, L.P.	463	14,846
Western Gas Partners LP	722	11,026
Williams Partners L.P.	453	13,745
Williams Pipeline Partners L.P.	303	5,210
		1,197,399
Propane MLP 7.5%		
Ferrellgas Partners, L.P.	375	7,764
Inergy, L.P.	2,841	74,914

82,678

Shipping MLP 2.0%

Capital Product Partners L.P.	113	1,763
K-Sea Transportation Partners L.P.	157	4,022
Navios Maritime Partners L.P.	151	1,891
OSG America L.P.	264	3,170
Teekay LNG Partners L.P.	303	6,892
Teekay Offshore Partners L.P.	254	4,085
		21,823

See accompanying notes to financial statements.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
SCHEDULE OF INVESTMENTS (CONTINUED)
AUGUST 31, 2008
(amounts in 000 s)
(UNAUDITED)

Description	No. of Shares/Units	Value
Coal MLP 6.6%		
Alliance Resource Partners L.P.	145	\$ 6,754
Clearwater Natural Resources, LP Unregistered(c)(g)(h)	3,889	46,667
Clearwater Natural Resources, LP Unregistered, Deferred Participation Units(c)(g)(h)(i)	41	167
Natural Resource Partners L.P.	176	6,107
Penn Virginia Resource Partners, L.P.	517	12,876
		72,571
Upstream MLP(b) 9.1%		
Atlas Energy Resources, LLC	1,566	54,933
BreitBurn Energy Partners L.P.	1,947	32,318
Constellation Energy Partners LLC	717	9,945
Legacy Reserves LP	65	1,306
Pioneer Southwest Energy Partners, L.P.	119	2,221
		100,723
MLP Affiliates(b) 16.3%		
Enbridge Energy Management, L.L.C.(j)	569	28,755
Kinder Morgan Management, LLC(j)	2,708	150,271
		179,026
General Partner MLP(b) 7.8%		
Atlas Pipeline Holdings, L.P.	76	2,263
Buckeye GP Holdings L.P.	173	3,286
CNR GP Holdco, LLC Unregistered(c)(g)(h)(k)	N/A	7,069
Energy Transfer Equity, L.P.	208	6,007
Enterprise GP Holdings L.P.	1,239	36,817
Hiland Holdings GP, LP	140	3,120
Inergy Holdings GP	108	3,520
Magellan Midstream Holdings, L.P.	1,087	24,094
		86,176
Other MLP 2.1%		

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Calumet Specialty Products Partners, L.P.	492	7,034
Exterran Partners, L.P.	702	15,576
		22,610
Total Equity Investments (Cost \$1,329,656)		1,763,006

See accompanying notes to financial statements.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
SCHEDULE OF INVESTMENTS (CONCLUDED)
AUGUST 31, 2008
(amounts in 000 s)
(UNAUDITED)

Description	Interest Rate	Maturity Date	Principal Amount	Value
Fixed Income Investment 0.9%				
Coal MLP 0.9%				
Clearwater Natural Resources, LP(c)(g) (Cost \$10,156)	(1)	12/03/09	\$ 10,130	\$ 10,130
Total Long-Term Investments (Cost \$1,339,812)				1,773,136
Short-Term Investment 0.9%				
Repurchase Agreement 0.9%				
Bear, Stearns & Co. Inc. (Agreement dated 8/29/08 to be repurchased at \$10,266), collateralized by \$10,564 in U.S. Treasury Bonds (Cost \$10,264)	1.980%	09/02/08		10,264
Total Investments 162.0% (Cost \$1,350,076)				1,783,400
Liabilities				
Senior Unsecured Notes				(450,000)
Deferred Taxes				(153,003)
Other Liabilities				(14,254)
Unrealized Depreciation on Interest Rate Swap Contracts				(1,713)
Total Liabilities				(618,970)
Unrealized Appreciation on Interest Rate Swap Contracts				106
Income Tax Receivable				1,202
Other Assets				9,675
Total Liabilities in Excess of Other Assets				(607,987)
Preferred Stock at Redemption Value				(75,000)
Net Assets Applicable to Common Stockholders				\$ 1,100,413

(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, 3 and 7).
- (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) Security or a portion thereof is segregated as collateral on interest rate swap contracts.
- (f) The Company believes that it is an affiliate of Plains All American, L.P. (See Note 5 Agreements and Affiliations).
- (g) Clearwater Natural Resources, LP is a privately-held MLP that the Company believes is a controlled affiliate (See Note 5 Agreements and Affiliations).
- (h) Security is non-income producing.
- (i) Holders of Clearwater Natural Resources, LP's deferred participation units are entitled to receive a portion of value realized in a sale or initial public offering by certain of the Partnership's common unitholders.
- (j) Distributions are paid in-kind.
- (k) CNR GP Holdco, LLC is the general partner of Clearwater Natural Resources, LP. The Company owns 83.7% of CNR GP Holdco, LLC and believes it is a controlled affiliate (See Note 5 Agreements and Affiliations)
- (l) Floating rate unsecured working capital term loan. Interest is paid in-kind at a rate of the higher of one year LIBOR or 4.75% plus 900 basis points (13.75% as of August 31, 2008).

See accompanying notes to financial statements.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
STATEMENT OF ASSETS AND LIABILITIES
AUGUST 31, 2008
(amounts in 000 s, except share and per share amounts)
(UNAUDITED)

ASSETS

Investments at fair value:	
Non-affiliated (Cost \$1,150,629)	\$ 1,560,828
Affiliated (Cost \$105,084)	148,275
Controlled (Cost \$84,099)	64,033
Repurchase agreement (Cost \$10,264)	10,264
Total investments (Cost \$1,350,076)	1,783,400
Deposits with brokers	250
Receivable for securities sold	5,433
Interest, dividends and distributions receivable	235
Income tax receivable	1,202
Deferred debt issuance costs and other, net	3,757
Unrealized appreciation on interest rate swap contracts	106
Total Assets	1,794,383

LIABILITIES

Investment management fee payable	6,566
Payable for securities purchased	1,083
Accrued directors' fees and expenses	63
Accrued expenses and other liabilities	6,542
Deferred tax liability	153,003
Unrealized depreciation on interest rate swap contracts	1,713
Senior Unsecured Notes	450,000
Total Liabilities	618,970

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 \$ 1,100,413

NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS CONSIST OF

Common stock, \$0.001 par value (43,858,030 shares issued and outstanding, 199,990,000 shares authorized)	\$ 44
Paid-in capital	850,148
Accumulated net investment loss, net of income taxes less dividends	(99,593)
Accumulated realized gains on investments and interest rate swap contracts, net of income taxes	78,776
Net unrealized gains on investments and interest rate swap contracts, net of income taxes	271,038

NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS	\$ 1,100,413
NET ASSET VALUE PER COMMON SHARE	\$25.09

See accompanying notes to financial statements.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
STATEMENT OF OPERATIONS
FOR THE NINE MONTHS ENDED AUGUST 31, 2008
(amounts in 000 s)
(UNAUDITED)

INVESTMENT INCOME**Income**

Dividends and distributions:

Non-affiliated investments	\$	86,250
Affiliated investments		8,098

Total dividends and distributions		94,348
Return of capital		(84,653)

Net dividends and distributions		9,695
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Interest

Non-affiliated investments		291
Controlled investments		592

Total interest		883
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Total Investment Income		10,578
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Expenses

Investment management fees		20,910
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Administration fees		678
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Professional fees		575
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Reports to stockholders		192
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Custodian fees		186
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Directors fees		151
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Insurance		135
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Other expenses		261
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Total Expenses Before Interest Expense, Auction Agent Fees and Taxes		23,088
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Interest expense (includes a \$5,528 write-off of debt issuance costs)		29,855
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Auction agent fees		729
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Total Expenses Before Taxes		53,672
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Net Investment Loss Before Taxes		(43,094)
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Deferred tax benefit		15,945
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Net Investment Loss		(27,149)
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REALIZED AND UNREALIZED GAINS/(LOSSES)**Net Realized Gains/(Losses)**

Investments		33,192
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Payments on interest rate swap contracts	(19,550)
Deferred tax expense	(5,047)
Net Realized Gains	8,595
Net Change in Unrealized Gains/(Losses)	
Investments	(217,821)
Payments on interest rate swap contracts	10,266
Deferred tax benefit	76,795
Net Change in Unrealized Losses	(130,760)
Net Realized and Unrealized Losses	(122,165)
NET DECREASE IN NET ASSETS RESULTING FROM OPERATIONS	(149,314)
DIVIDENDS TO PREFERRED STOCKHOLDERS	(3,216)
NET DECREASE IN NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS RESULTING FROM OPERATIONS	\$ (152,530)

See accompanying notes to financial statements.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
STATEMENT OF CHANGES IN NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS
(amounts in 000 s, except share amounts)

	For the Nine Months Ended August 31, 2008 (Unaudited)	For the Fiscal Year Ended November 30, 2007
OPERATIONS		
Net investment loss	\$ (27,149)	\$ (29,965)
Net realized gains	8,595	41,972
Net change in unrealized gains	(130,760)	87,498
Net Increase/(Decrease) in Net Assets Resulting from Operations	(149,314)	99,505
DIVIDENDS/DISTRIBUTIONS TO PREFERRED STOCKHOLDERS		
Dividends		(4,161) ⁽²⁾
Distributions return of capital	(3,216) ⁽¹⁾	
Dividends/Distributions to Preferred Stockholders	(3,216)	(4,161)
DIVIDENDS/DISTRIBUTIONS TO COMMON STOCKHOLDERS		
Dividends		(3,582) ⁽²⁾
Distributions return of capital	(64,828) ⁽¹⁾	(74,759) ⁽²⁾
Dividends/Distributions to Common Stockholders	(64,828)	(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 632,481 and 739,797 shares of common stock from reinvestment of distributions, respectively	17,741	23,585
Net Increase in Net Assets Applicable to Common Stockholders from Capital Stock Transactions	17,741	179,635
Total Increase/(Decrease) in Net Assets Applicable to Common Stockholders	(199,617)	196,638
NET ASSETS ATTRIBUTABLE TO COMMON STOCKHOLDERS		
Beginning of period	1,300,030	1,103,392
End of period	\$ 1,100,413	\$ 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 and distributions paid to preferred and common stockholders during the nine months ended August 31, 2008 as either a dividend (ordinary income) or a 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 and distributions 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 and distributions paid to preferred and common stockholders for the fiscal year ended November 31, 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.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
STATEMENT OF CASH FLOWS
FOR THE NINE MONTHS ENDED AUGUST 31, 2008
(amounts in 000 s)
(UNAUDITED)

CASH FLOWS FROM OPERATING ACTIVITIES

Net decrease in net assets resulting from operations	\$ (149,314)
Adjustments to reconcile net decrease in net assets resulting from operations to net cash used in operating activities:	
Net deferred tax benefit	(87,693)
Return of capital distributions	84,653
Net realized gains	(13,642)
Unrealized losses on investments and interest rate swap contracts	207,555
Write-off of debt issuance costs	5,528
Purchase of investments	(82,220)
Proceeds from sale of investments	218,700
Purchase of short-term investments, net	(9,974)
Amortization of bond premium	13
Decrease in deposits with brokers	1,604
Decrease in receivable for securities sold	23,373
Decrease in interest, dividend and distributions receivables	1,473
Decrease in income tax receivable	1,274
Decrease in deferred debt issuance costs and other	531
Decrease in investment management fee payable	(1,149)
Increase in payable for securities purchased	355
Increase in accrued directors' fees and expenses	11
Increase in accrued expenses and other liabilities	4,919
Net Cash Provided by Operating Activities	205,997

CASH FLOWS FROM FINANCING ACTIVITIES

Proceeds from issuance of Senior Unsecured Notes, net of offering costs of \$3,694	446,306
Redemption of auction rate senior notes	(505,000)
Repayment on revolving credit facility	(97,000)
Cash dividends and distributions paid to preferred stockholders	(3,216)
Cash dividends and distributions paid to common stockholders	(47,087)
Net Cash Used in Financing Activities	(205,997)

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 \$17,741 pursuant to the Company's dividend reinvestment plan.

During the nine months ended August 31, 2008, federal and state tax refunds of \$1,274 were received and interest paid was \$19,373.

See accompanying notes to financial statements.

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

	For the Nine Months	For the Fiscal Year			For the Period September 28, 2004⁽¹⁾
	Ended August 31, 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)	(0.62)	(0.73)	(0.62)	(0.17)	0.02
Net realized and unrealized gain on investments, securities sold short, options and interest rate swap contracts	(2.80)	3.58	6.39	2.80	0.19
Total income from investment operations	(3.42)	2.85	5.77	2.63	0.21
Dividends/Distributions Preferred Stockholders⁽³⁾⁽⁴⁾					
Dividends		(0.10)		(0.05)	
Distributions return of capital	(0.07)		(0.10)		
Total dividends/distributions Preferred Stockholders	(0.07)	(0.10)	(0.10)	(0.05)	
Dividends/Distributions Common Stockholders					
Dividends		(0.09)		(0.13)	
Distributions return of capital	(1.50)	(1.84)	(1.75)	(1.37)	

Total dividends/distributions Common Stockholders	(1.50)	(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	\$ 25.09	\$ 30.08	\$ 28.99	\$ 25.07	\$ 23.91
Market value per share of common stock, end of period	\$ 27.13	\$ 28.27	\$ 31.39	\$ 24.33	\$ 24.90
Total investment return based on common stock market value ⁽⁵⁾	1.2%	(4.4)%	37.9%	3.7%	(0.4)%
Supplemental Data and Ratios⁽⁶⁾					
Net assets applicable to common stockholders, end of period	\$ 1,100,413	\$ 1,300,030	\$ 1,103,392	\$ 932,090	\$ 792,836
Ratio of expenses to average net assets: ⁽⁷⁾					
Excluding income tax expense/benefit, interest expense and auction agent fees	2.5%	2.5%	3.4%	1.5%	1.2%
Excluding income tax expense/benefit	5.9%	4.8%	5.1%	2.3%	1.2%
Including income tax expense/benefit	(3.7)%	8.3%	18.9%	8.7%	4.7%
Ratio of net investment income/(loss) to average net assets	(3.0)%	(2.3)%	(2.4)%	(0.7)%	0.5%
	(12.6)% ⁽⁸⁾	7.3%	21.7%	10.0%	0.9% ⁽⁸⁾

Net increase/(decrease) in
net assets to common
stockholders resulting
from operations to average
net assets

Portfolio turnover rate		4.1% ⁽⁸⁾	10.6%	10.0%	25.6%	11.8% ⁽⁸⁾
Senior Notes outstanding, end of period	\$	450,000	\$ 505,000	\$ 320,000	\$ 260,000	
Revolving credit facility	\$	0	\$ 97,000	\$ 17,000		
Auction Rate Preferred Stock, end of period	\$	75,000	\$ 75,000	\$ 75,000	\$ 75,000	
Asset coverage of total debt Dividend Payment Test ⁽⁹⁾		361.2%	372.3%	468.3%	487.3%	
Asset coverage of total debt Debt Incurrence Test ⁽¹⁰⁾		361.2%	328.4%	449.7%	487.3%	
Asset coverage of total leverage (Debt and Preferred Stock) ⁽¹¹⁾		309.6%	292.0%	367.8%	378.2%	
Average amount of borrowings outstanding per share of common stock during the period	\$	12.32 ⁽³⁾	\$ 12.14 ⁽³⁾	\$ 8.53 ⁽³⁾	\$ 5.57 ⁽³⁾	

See accompanying notes to financial statements.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
FINANCIAL HIGHLIGHTS (CONTINUED)

(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 43,550,994; 41,134,949; 37,638,314; 34,077,731 and 33,165,900, for the nine months ended August 31, 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 for the nine months ended August 31, 2008 is an estimate of the characterization of the dividends paid and is based on the Company's operating results during the period. The information presented for each other period is a characterization of a portion of the total dividends and distributions paid to preferred stockholders and common stockholders as either a dividend (ordinary income) or a distribution (return of capital) and is based on the Company's earnings and profits.
- (5) Not annualized for the nine months ended August 31, 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) The following table sets forth the components of the Company's ratio of expenses to average total assets and average net assets for each period presented in our Financial Highlights.

August 31, 2008 Ratio of Expense to (Unaudited)		November 30, 2007 Ratio of Expense to		November 30, 2006 Ratio of Expense to		November 30, 2005 Ratio of Expense to	
Average Total Assets	Average Net Assets	Average Total Assets	Average Net Assets	Average Total Assets	Average Net Assets	Average Total Assets	Average Net Assets
1.4%	2.3%	1.4%	2.3%	2.0%	3.2%	0.9%	1.2%
0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3
1.5%	2.5%	1.6%	2.5%	2.2%	3.4%	1.2%	1.5%
2.0	3.4	1.3	2.3	1.1	1.7	0.6	0.8

3.5%	5.9%	2.9%	4.8%	3.3%	5.1%	1.8%	2.3%
(5.7)	(9.6)	2.2	3.5	8.9	13.8	5.0	6.4
(2.2)%	(3.7)%	5.1%	8.3%	12.2%	18.9%	6.8%	8.7%

20,086	\$ 1,209,772	\$ 2,105,217	\$ 1,302,425	\$ 1,520,322	\$ 986,908	\$ 1,137,399	\$ 870,672	\$ 7
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(8) Not annualized.

See accompanying notes to financial statements.

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

- (9) Calculated pursuant to section 18(a)(1)(B) of the 1940 Act. Represents the value of total assets less all liabilities not represented by senior notes or any other senior securities representing indebtedness divided by the aggregate amount of 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.
- (10) Calculated pursuant to section 18(a)(1)(A) of the 1940 Act. Represents the value of total assets less all liabilities not represented by senior notes or any other senior securities representing indebtedness divided by the aggregate amount of 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 facility is considered a senior security representing indebtedness.
- (11) 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 senior notes, any other senior securities representing indebtedness, or Auction Rate Preferred Stock divided by the aggregate amount of 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 facility is considered a senior security representing indebtedness.

See accompanying notes to financial statements.

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**KAYNE ANDERSON MLP INVESTMENT COMPANY
NOTES TO FINANCIAL STATEMENTS
AUGUST 31, 2008**

**(amounts in 000 s, 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 net asset value 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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**KAYNE ANDERSON MLP INVESTMENT COMPANY
NOTES TO FINANCIAL STATEMENTS (UNAUDITED) (CONTINUED)**

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 applicable 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 August 31, 2008, the Company held 6.3% of its net assets applicable to common stockholders (3.8% of total assets) in securities valued at fair value as determined pursuant to procedures adopted by the Board of Directors, with fair value of \$68,825. Although these securities may be resold in privately negotiated transactions (subject to

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

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 (See Note 7 Restricted Securities).

On March 19, 2008, Financial Accounting Standards Board released Statement of Financial Accounting Standards No. 161, Disclosures about Derivative Instruments and Hedging Activities (FAS 161). FAS 161 requires qualitative disclosures about objectives and strategies for using derivatives, quantitative disclosures about fair value amounts of and gains and losses on derivative instruments, and disclosures about credit-risk-related contingent features in derivative agreements. The application of FAS 161 is required for fiscal years beginning after November 15, 2008 and interim periods within those fiscal years. At this time, management is evaluating the implications of FAS 161 and its impact on the financial statements has not yet been determined.

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 which 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 August 31, 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 August 31, 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 nine months ended August 31,

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

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 \$84,653 of dividends and distributions received from MLPs. The return of capital of \$84,653, 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 \$15,636 and \$69,017, 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 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 and distributions 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 and distributions made 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, as new information becomes available, the Company modifies its estimates or assumptions regarding the deferred tax liability.

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.

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

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 August 31, 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. 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.

L. 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 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. 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.

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

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.

The following table presents our assets and liabilities measured at fair value on a recurring basis at August 31, 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	\$ 1,773,136	\$ 1,704,311		\$ 68,825
Unrealized appreciation on interest rate swaps	106		\$ 106	
Total	\$ 1,773,242	\$ 1,704,311	\$ 106	\$ 68,825
<u>Liabilities at Fair Value</u>				
Unrealized depreciation on interest rate swaps	\$ 1,713		\$ 1,713	

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 August 31, 2008.

Assets at Fair Value Using Unobservable Inputs (Level 3)	Long-Term Investments
Balance November 30, 2007	\$ 195,919
Transfers out of Level 3	(151,962)
Realized gains/(losses)	
Unrealized gains, net	13,631
Purchases, issuances or settlements	11,237
Balance August 31, 2008	\$ 68,825

The \$13,631 of unrealized gains, presented in the table above relate to investments that are still held at August 31, 2008, and the Company includes these unrealized gains in 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 August 31, 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.

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

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.

For the nine months ended August 31, 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 limited partnership interests that it holds as voting securities unless the security holders of such class currently 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 August 31, 2008, the Company held approximately 42.5% of the limited partnership interest of Clearwater Natural Resources, LP (Clearwater). The Company controls CNR GP Holdco, LLC which is the general partner of Clearwater. The Company believes that it controls and is an affiliate of Clearwater under the 1940 Act by virtue of its controlling interest in the general partner of Clearwater.

CNR GP Holdco, LLC At August 31, 2008, the Company held an 83.7% interest in CNR GP Holdco, LLC (CNR) which is the general partner of Clearwater. The Company believes that it controls and is an affiliate of CNR under the 1940 Act by virtue of its controlling interest. This security was purchased on March 5, 2008.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
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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 is an affiliate of Plains All American, L.P. under the 1940 Act.

C. *Other Affiliates* For the nine months ended August 31, 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 August 31, 2008 are as follows:

Deferred tax assets:	
Organizational costs	\$ (12)
Net operating loss carryforwards	(42,780)
Deferred tax liabilities:	
Net unrealized gains on investment securities and interest rate swap contracts	198,288
Tax effect of 2008 net investment loss and net realized loss	(2,493)
Total net deferred tax liability	\$ 153,003

At November 30, 2007, 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 August 31, 2008, the cost basis of investments for federal income tax purposes was \$1,246,518. The cost basis of investments includes a \$103,558 reduction in basis attributable to the Company's portion of the allocated losses from its MLP investments. At August 31, 2008, gross unrealized appreciation and depreciation of investments for federal income tax purposes were as follows:

Gross unrealized appreciation of investments	\$ 628,887
Gross unrealized depreciation of investments	(92,006)

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Net unrealized appreciation before tax and interest rate swap contracts	536,881
Net unrealized depreciation on interest rate swap contracts	(1,607)
Net unrealized appreciation before tax	535,274
Net unrealized appreciation after tax	337,223

For the nine months ended August 31, 2008, the components of net income tax benefit include \$82,953 and \$4,740 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

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

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 Statement of Operations. As of August 31, 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.

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 August 31, 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
Clearwater Natural Resources, L.P.	Common Units	(2)	3,889	(3)	\$ 72,860	\$ 46,667	\$ 12.00	4.2%	2.6%
Clearwater Natural Resources, L.P.	Term Loan	(2)	\$ 10,130	(4)	10,156	10,130	n/a	0.9	0.5
Clearwater Natural Resources, L.P.	Deferred Participation Units	(2)	41	3/5/2008		167	4.08	0.0	0.0
CNR GP Holdco, LLC	LLC Interests	(5)	n/a	3/5/2008	1,083	7,069	7,069	0.7	0.4
Copano Energy, L.L.C.	Class E Units	(6)	157	10/19/07	5,000	4,792	30.45	0.5	0.3

\$ 89,099	\$ 68,825	6.3%	3.8%
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- (1) Restricted security that represent Level 3 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) Security of a privately-held MLP.
- (3) The Company purchased common units on August 1, 2005 and October 2, 2006.
- (4) The Company purchased term loans on January 11, 2008; February 28, 2008; May 5, 2008; July 8, 2008 and August 6, 2008.
- (5) Security of a private company.
- (6) Unregistered security of a publicly-traded company.

8. Investment Transactions

For the nine months ended August 31, 2008, the Company purchased and sold securities in the amount of \$82,220 and \$218,700 (excluding short-term investments, securities sold short, options and interest rate swaps), respectively.

9. Revolving Credit Facility

On April 15, 2008, the Company entered into a new \$200 million unsecured revolving credit facility (New Facility). The New 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 by both the Company and Custodial Trust Company (CTC), an affiliate of the administrator, Bear Stearns Funds Management Inc. Outstanding loan balances under the New Facility will accrue interest daily at a rate equal to the one-month LIBOR plus

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

1.65 percent. The Company will pay a fee equal to a rate of 0.50 percent per annum on any unused amounts of the New Facility. The New Facility contains various covenants of the Company related to other indebtedness, liens and limits on the Company's overall leverage. A full copy of the New Facility can be found on the Company's website, www.kaynefunds.com.

On August 29, 2008 the Company's New Facility was assigned by CTC to its affiliate JPMorgan Chase Bank, N.A.

Prior to the New Facility, the Company had an uncommitted secured revolving credit facility with CTC, under which the Company borrowed from CTC an aggregate amount of up to the lesser of \$200,000 or the maximum amount the Company was permitted to borrow under the 1940 Act, subject to certain limitations imposed by CTC.

For the nine months ended August 31, 2008, the average amount outstanding under the Company's credit facilities was \$46,484 with a weighted average interest rate of 4.42%. As of August 31, 2008, the Company had no outstanding borrowings under the New Facility.

10. Senior Unsecured Notes

On June 19, 2008, the Company issued \$450,000, aggregate principle amount, of senior unsecured fixed and floating rate notes (the Senior Unsecured Notes) in a private placement. The net proceeds from the issuance combined with borrowings under the Company's credit facility were used to redeem all \$505,000 aggregate principal amount of the Company's Auction Rate Senior Notes (Series A, B, C, E and F Notes) between July 7, 2008 and July 14, 2008. From the issuance date of the Senior Unsecured Notes until July 14, 2008, the Company incurred \$1,457 in interest costs associated with the auction rate senior notes. The Company wrote-off \$5,528 of debt issuance costs associated with the auction rate senior notes that were redeemed. These amounts are included in interest expense on the Statement of Operations for the nine months ended August 31, 2008.

The table below sets forth the key terms of each series of the Senior Unsecured Notes:

Series	Principal	Rate	Maturity
G	\$ 75,000	5.645%	6/19/2011
H	25,000	3-month LIBOR + 225 bps	6/19/2011
I	60,000	5.847%	6/19/2012
J	40,000	3-month LIBOR + 225 bps	6/19/2012
K	125,000	5.991%	6/19/2013
L	125,000	3-month LIBOR + 230 bps	6/19/2013
Total	\$ 450,000		

Holders of the fixed rate Senior Unsecured Notes (Series G, Series I and Series K) are entitled to receive cash interest payments semi-annually (on June 19 and December 19) at the fixed rate. Holders of the floating rate Senior Unsecured Notes (Series H, J, and L) are entitled to receive cash interest payments quarterly (on March 19, June 19, September 19, and December 19) at the floating rate equal to the Adjusted LIBOR Rate.

The weighted average interest rate for the Senior Unsecured Notes during the period was 5.54%.

The Senior Notes are not listed on any exchange or automated quotation system. Under the 1940 Act and the terms of the Senior Unsecured Notes, 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%. In addition to compliance with the 1940 Act, the Senior Unsecured Notes contain various covenants of the Company related to other indebtedness, liens and limits on the Company's overall leverage.

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

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**KAYNE ANDERSON MLP INVESTMENT COMPANY
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deadline, or fails to cure a deficiency as stated in the Company's rating agency guidelines in a timely manner. A full copy of the notes purchase agreement can be found on the Company's website, www.kaynefunds.com.

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 August 31, 2008, the Company was in compliance with all covenants required under the Senior Notes agreements.

Prior to the redemption of the Auction Rate Senior Notes, holders were entitled to interest payments at an annual rate that varied for each rate period. The weighted average interest rates of Series A, B, C, E and F Auction Rate Senior Notes during the nine months ended August 31, 2008 were 5.31%, 5.33%, 5.82%, 5.36% and 5.45%, respectively. These weighted average interest rates were based on the weekly and monthly auctions, as appropriate, of the Auction Rate Senior Notes and did not include commissions paid to the auction agent in the amount of 0.25%.

11. Preferred Stock

At August 31, 2008, the Company had issued 3,000 shares of Series D Auction Rate Preferred Stock (ARPS) 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 ARPS has a liquidation value of \$25,000 per share plus any accumulated, but unpaid dividends, whether or not declared.

Holders of the ARPS are entitled to receive cash dividend payments at an annual rate that may vary for each rate period. The dividend rate as of August 31, 2008 was 4.83%. The weighted average dividend rate for the nine months ended August 31, 2008, was 5.61%. 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, there have been more Preferred Stock shares offered for sale than there were buyers of those Preferred Stock shares, and as a result, the auctions of the Company's Series D Auction Rate Preferred Stock have failed. As a result, the dividend rate on the ARPS 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.

The ARPS is redeemable in certain circumstances at the option of the Company. The ARPS 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 ARPS 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 ARPS 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

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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. On May 15, and June 11, 2008, the Company terminated \$285,000 and \$140,000, aggregate notional amount, of interest rate swap contracts with a weighted average fixed interest rate of 4.95% and 4.42% for \$13,677 and \$2,892, respectively.

As of August 31, 2008, the Company has entered into three interest rate swap contracts with UBS AG as summarized below.

Termination Date	Notional Amount	Fixed Rate Paid by the Company	Net Unrealized Appreciation/ (Depreciation)
12/6/2010	\$ 50,000	3.85%	\$ (722)
1/22/2011	50,000	3.20	95
4/1/2011	85,000	3.77	(980)
Total	\$ 185,000		\$ (1,607)

At August 31, 2008, the weighted average duration of the interest rate swap contracts was 2.4 years and the weighted average fixed rate was 3.64%. For all three interest rate swap contracts, the Company receives a floating rate, based on one-month LIBOR.

13. Common Stock

The Company has 199,990,000 shares of common stock authorized and 43,858,030 shares outstanding at August 31, 2008. As of that date, KACALP owned 4,000 shares. Transactions in common shares for the nine months ended August 31, 2008, were as follows:

Shares outstanding at November 30, 2007	43,225,549
Shares issued through reinvestment of cash distributions	632,481
Shares outstanding at August 31, 2008	43,858,030

14. Notice of Potential Purchases of Preferred Stock

The Company may, from time to time, repurchase shares of its Auction Rate Preferred Stock for cash at a price not above the market value of such shares at the time of such purchase, subject to the requirements of applicable law.

15. Subsequent Events

Since the end of our fiscal third quarter, the global credit crisis has intensified. During this period, the market prices for publicly traded MLP securities have declined substantially. As a result of this decline, on October 8, 2008 and October 10, 2008, the Company completed the repurchase of \$60 million and \$20 million, respectively, aggregate principal amount of Floating Rate Series L Senior Notes at 101% of par value. The Company used available cash on hand to repay the notes in order to manage its compliance with asset coverage ratios under the 1940 Act and the terms of its Senior Unsecured Notes.

On October 8, 2008, the Company set aside, for payment on October 10, 2008, a dividend/distribution to its common stockholders in the amount of \$0.50 per share, for a total of \$21,929. Of this total, \$5,743 was reinvested into the Company, pursuant to the Company's dividend reinvestment plan; in connection with that reinvestment 318,156 shares of common stock were issued.

On October 15, 2008, the Company entered into two additional interest rate swap contracts with notional values of \$25,000 and \$50,000, at fixed rates of 2.95% and 3.40%, and maturities of two and three years, respectively.

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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	Executive Vice President, Assistant Secretary and Assistant Treasurer
James C. Baker	Executive Vice President

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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>.

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