

Kayne Anderson MLP Investment CO
Form N-30B-2
April 29, 2011

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS: This report of Kayne Anderson MLP Investment Company (the Company) contains forward-looking statements as defined under the U.S. federal securities laws. Generally, the words believe, expect, intend, estimate, anticipate, project, will 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; master limited partnership industry risk; leverage risk; valuation risk; interest rate risk; tax risk; and other risks discussed in the Company s filings with the Securities and Exchange Commission (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
MANAGEMENT DISCUSSION
(UNAUDITED)**

Company Overview

Kayne Anderson MLP Investment Company is a non-diversified, closed-end fund formed in September 2004. Our investment objective is to obtain a high after-tax total return by investing at least 85% of our total assets in energy-related master limited partnerships and their affiliates (MLPs) and in other companies that operate assets used in the gathering, transporting, processing, storing, refining, distributing, mining or marketing of natural gas, natural gas liquids, crude oil, refined petroleum products or coal (collectively with MLPs, Midstream Energy Companies).

As of February 28, 2011, we had total assets of \$3.3 billion, net assets applicable to our common stock of \$2.0 billion (net asset value per share of \$28.73), and 68.7 million shares of common stock outstanding.

Our investments are principally in equity securities issued by MLPs, but we may also invest in debt securities of MLPs and debt/equity securities of Midstream Energy Companies. As of February 28, 2011, we held \$3.3 billion in equity investments and \$33.2 million in debt investments.

Recent Events

On April 8, 2011, we closed our public offering of 5.7 million shares of common stock at a price of \$30.58 per share. Net proceeds from the offering of \$167.4 million were used to make additional portfolio investments that are consistent with our investment objective and policies and for general corporate purposes.

On April 27, 2011, we reached a conditional agreement with institutional investors relating to a private placement of \$225 million of senior unsecured notes (Senior Notes). The table below sets forth the key terms of the Senior Notes:

| Series | Amount (\$ in millions) | Rate | Term |
|----------|----------------------------|-----------------|---------|
| | | 3-month LIBOR + | |
| Series U | \$ 60 | 145 bps | 5 years |
| Series V | 65 | 3.71% | 5 years |
| Series W | 100 | 4.38% | 7 years |
| Total | \$ 225 | | |

Net proceeds from such offering will be used to repay borrowings under our revolving credit facility, to refinance the Series G Senior Notes that mature in June 2011 (\$75 million principal amount), to make new portfolio investments and for general corporate purposes. Closing of the Senior Notes is scheduled for late May and is subject to investor due diligence, legal documentation and other standard closing conditions.

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**KAYNE ANDERSON MLP INVESTMENT COMPANY
MANAGEMENT DISCUSSION
(UNAUDITED)**

Our Top Ten Portfolio Investments as of February 28, 2011

Listed below are our top ten portfolio investments by issuer as of February 28, 2011.

| Holding | Sector | Amount (\$ millions) | Percent of Long-Term Investments |
|---------------------------------------|-----------------|-------------------------|--|
| 1. Enterprise Products Partners L.P. | Midstream MLP | \$ 286.6 | 8.6% |
| 2. Magellan Midstream Partners, L.P. | Midstream MLP | 216.5 | 6.5 |
| 3. Kinder Morgan Management, LLC | MLP Affiliate | 203.3 | 6.1 |
| 4. Plains All American Pipeline, L.P. | Midstream MLP | 188.3 | 5.7 |
| 5. Inergy, L.P. | Propane MLP | 166.2 | 5.0 |
| 6. MarkWest Energy Partners, L.P. | Midstream MLP | 156.7 | 4.7 |
| 7. Williams Partners L.P. | Midstream MLP | 156.0 | 4.7 |
| 8. Copano Energy, L.L.C. | Midstream MLP | 117.9 | 3.6 |
| 9. Energy Transfer Partners, L.P. | Midstream MLP | 114.8 | 3.5 |
| | General Partner | | |
| 10. Energy Transfer Equity, L.P. | MLP | 112.9 | 3.4 |
| | | \$ 1,719.2 | 51.8% |

Results of Operations For the Three Months Ended February 28, 2011

Investment Income. Investment income totaled \$6.5 million and consisted primarily of net dividends and distributions and interest and other income on our investments. Interest and other income was \$1.5 million, and we received \$42.0 million of cash dividends and distributions, of which \$37.0 million was treated as return of capital during the period. During the quarter, we received \$5.0 million of paid-in-kind dividends, which is not included in investment income, but is reflected as an unrealized gain.

Operating Expenses. Operating expenses totaled \$21.9 million, including \$10.7 million of investment management fees, \$7.8 million of interest expense (including non-cash amortization of debt issuance costs of \$0.3 million), and \$1.1 million of other operating expenses. Management fees are calculated based on the average total assets under management. Preferred stock distributions for the first quarter were \$2.2 million (including non-cash amortization of \$0.1 million).

Net Investment Loss. Our net investment loss totaled \$9.7 million and included a deferred income tax benefit of \$5.7 million.

Net Realized Gains. We had net realized gains from our investments of \$31.4 million, net of \$18.7 million of deferred tax expense.

Net Change in Unrealized Gains. We had net unrealized gains of \$152.6 million. The net unrealized gain consisted of \$243.4 million of unrealized gains from investments and a deferred tax expense of \$90.8 million.

Net Increase in Net Assets Resulting from Operations. We had an increase in net assets resulting from operations of \$174.3 million. The composition of this increase was as follows: (a) net investment loss of \$9.7 million; (b) net realized gains of \$31.4 million; and (c) net unrealized gains of \$152.6 million, as noted above.

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**KAYNE ANDERSON MLP INVESTMENT COMPANY
MANAGEMENT DISCUSSION
(UNAUDITED)**

Distributions to Common Stockholders

We pay quarterly distributions to our common stockholders, funded in part by net distributable income (NDI) generated from our portfolio investments. NDI is the amount of income received by us from our portfolio investments less operating expenses, subject to certain adjustments as described below. NDI is not a financial measure under the accounting principles generally accepted in the United States of America (GAAP). Refer to the Reconciliation of NDI to GAAP section below for a reconciliation of this measure to our results reported under GAAP.

Income from portfolio investments includes (a) cash dividends and distributions, (b) paid-in-kind dividends received (i.e., stock dividends), (c) interest income from debt securities and commitment fees from private investments in public equity (PIPE) and (d) net premiums received from the sale of covered calls.

Operating expenses include (a) investment management fees paid to our investment adviser, (b) other expenses (mostly attributable to fees paid to other service providers), (c) interest expense and preferred stock distributions and (d) deferred income tax expense/benefit on net investment income/loss.

Net Distributable Income (NDI)
(amounts in millions, except for per share amounts)

| | Three Months Ended February 28, 2011 |
|--|---|
| Distributions and Other Income from Investments | |
| Dividends and Distributions | \$ 42.0 |
| Paid-In-Kind Dividends | 5.5 |
| Interest and Other Income ⁽¹⁾ | 2.2 |
| Net Premiums Received from Call Options Written | 1.6 |
| Total Distributions and Other Income from Investments | 51.3 |
| Expenses | |
| Investment Management Fee | (10.7) |
| Other Expenses | (1.1) |
| Total Management Fee and Other Expenses | (11.8) |
| Interest Expense | (7.5) |
| Preferred Stock Distributions | (2.1) |
| Income Tax Benefit | 5.7 |
| Net Distributable Income (NDI) | \$ 35.6 |
| Weighted Shares Outstanding | 68.6 |
| NDI per Weighted Share Outstanding | \$ 0.52 |

- (1) Includes \$1.0 million of commitment fees from PIPE investments, which is recorded as a reduction to the cost of the investment.

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**KAYNE ANDERSON MLP INVESTMENT COMPANY
MANAGEMENT DISCUSSION
(UNAUDITED)**

Payment of future distributions is subject to Board of Directors approval, as well as meeting the covenants of our debt agreements and terms of our preferred stock. In determining our quarterly distribution to common stockholders, our Board of Directors considers a number of factors that include, but are not limited to:

NDI generated in the current quarter;

Expected NDI over the next twelve months; and

Realized and unrealized gains generated by the portfolio.

On March 22, 2011, we increased our quarterly distribution to \$0.49 from \$0.485 per common share for the period December 1, 2010 through February 28, 2011 for a total quarterly distribution payment of \$33.7 million. The distribution was paid on April 15, 2011 to stockholders of record on April 5, 2011.

Reconciliation of NDI to GAAP

The difference between distributions and other income from investments in the NDI calculation and total investment income as reported in our Statement of Operations is reconciled as follows:

GAAP recognizes that a significant portion of the cash distributions received from MLPs is characterized as a return of capital and therefore excluded from investment income, whereas the NDI calculation includes the return of capital portion of such distributions.

NDI includes the value of dividends paid-in-kind, whereas such amounts are not included as investment income for GAAP purposes, but rather are recorded as unrealized gains upon receipt.

NDI includes commitment fees from PIPE investments, whereas such amounts are generally not included in investment income for GAAP purposes, but rather are recorded as a reduction to the cost of the investment.

Many of our investments in debt securities were purchased at a discount or premium to the par value of such security. When making such investments, we consider the security's yield to maturity, which factors in the impact of such discount (or premium). Interest income reported under GAAP includes the non-cash accretion of the discount (or amortization of the premium) based on the effective interest method. When we calculate interest income for purposes of determining NDI, in order to better reflect the yield to maturity, the accretion of the discount (or amortization of the premium) is calculated on a straight-line basis to the earlier of the expected call date or the maturity of the debt security.

We may sell covered call option contracts to generate income or to reduce our ownership of certain securities that we hold. In some cases, we are able to repurchase these call option contracts at a price less than the fee that we received, thereby generating a profit. The amount we received from selling call options, less the amount that we pay to repurchase such call option contracts is included in NDI. For GAAP purposes, premiums received from call option contracts sold is not included in investment income. See Note 2 Significant Accounting Policies for a full discussion of the GAAP treatment of option contracts.

The treatment of expenses included in NDI also differs from what is reported in the Statement of Operations as follows:

The non-cash amortization of capitalized debt issuance costs and preferred stock offering costs related to our financings is included in interest expense and distributions on mandatory redeemable preferred stock for GAAP purposes, but is excluded from our calculation of NDI. Further, write-offs of capitalized debt issuance costs and preferred stock offering costs are excluded from our calculation of NDI, but are included in interest expense for GAAP purposes.

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**KAYNE ANDERSON MLP INVESTMENT COMPANY
MANAGEMENT DISCUSSION
(UNAUDITED)**

NDI also includes recurring payments (or receipts) on interest rate swap contracts (excluding termination payments) whereas for GAAP purposes, these amounts are included in the realized gains/losses section of the Statement of Operations.

Liquidity and Capital Resources

Total leverage outstanding at February 28, 2011 of \$836.0 million is comprised of \$620.0 million in senior unsecured notes, \$160.0 million in mandatory redeemable preferred stock and \$56.0 million outstanding under our senior unsecured revolving credit facility (the Credit Facility). Total leverage represented 25% of total assets at February 28, 2011. As of April 21, 2011, we had \$74.0 million borrowed under our Credit Facility.

The Credit Facility has a \$150.0 million commitment maturing on June 11, 2013. The Credit Facility was increased by \$50.0 million effective February 25, 2011. The interest rate may vary between LIBOR plus 1.75% and LIBOR plus 3.00%, depending on our asset coverage ratios. Outstanding loan balances accrue interest daily at a rate equal to one-month LIBOR plus 1.75% based on current asset coverage ratios. We pay a commitment fee of 0.40% per annum on any unused amounts of the Credit Facility. A full copy of our Credit Facility is available on our website, www.kaynefunds.com.

At February 28, 2011, our asset coverage ratios under the Investment Company Act of 1940, as amended (the 1940 Act), were 416% and 336% for debt and total leverage (debt plus preferred stock), respectively. We currently target an asset coverage ratio with respect to our debt of 375%, but at times may be above or below our target depending on market conditions.

At February 28, 2011, we had \$620.0 million of senior unsecured notes outstanding with the following maturity dates: \$75.0 million matures in 2011; \$60.0 million matures in 2012; \$125.0 million matures in 2013; \$110.0 million matures in 2014; \$125.0 million matures in 2015; \$25.0 million matures in 2017; \$60.0 million matures in 2020; and \$40.0 million matures in 2022. At February 28, 2011, we had \$160.0 million of mandatory redeemable preferred stock with the following redemption dates: \$118.0 million redeemable in 2017 and \$42.0 million redeemable in 2020.

As of February 28, 2011, our leverage consisted of both fixed rate (82%) and floating rate (18%) obligations. At such date, the weighted average interest rate on our leverage was 4.65%.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
SCHEDULE OF INVESTMENTS
FEBRUARY 28, 2011
(amounts in 000 s, except number of option contracts)
(UNAUDITED)

| Description | No. of Shares/Units | Value |
|---|------------------------|-----------|
| Long-Term Investments | 167.9% | |
| Equity Investments⁽¹⁾ | 166.2% | |
| Midstream MLP⁽²⁾ | 117.0% | |
| Boardwalk Pipeline Partners, LP | 510 | \$ 16,935 |
| Buckeye Partners, L.P. | 691 | 44,789 |
| Buckeye Partners, L.P. Unregistered, Class B Units ⁽³⁾ (4) | 535 | 29,903 |
| Chesapeake Midstream Partners, L.P. | 1,154 | 30,038 |
| Copano Energy, L.L.C. | 3,257 | 117,922 |
| Crestwood Midstream Partners LP | 1,132 | 34,085 |
| Crosstex Energy, L.P. | 2,641 | 44,901 |
| DCP Midstream Partners, L.P. | 1,599 | 67,590 |
| Duncan Energy Partners L.P. ⁽⁵⁾ | 511 | 20,820 |
| Eagle Rock Energy Partners, L.P. | 237 | 2,300 |
| El Paso Pipeline Partners, L.P. | 2,763 | 104,160 |
| Enbridge Energy Partners, L.P. | 1,309 | 87,783 |
| Energy Transfer Partners, L.P. | 2,094 | 114,839 |
| Enterprise Products Partners L.P. | 6,574 | 286,617 |
| Exterran Partners, L.P. | 1,627 | 48,308 |
| Global Partners LP | 1,825 | 49,830 |
| Holly Energy Partners, L.P. | 635 | 37,893 |
| Magellan Midstream Partners, L.P. | 3,582 | 216,495 |
| MarkWest Energy Partners, L.P. | 3,490 | 156,687 |
| Martin Midstream Partners L.P. | 240 | 9,511 |
| Niska Gas Storage Partners LLC | 725 | 14,687 |
| ONEOK Partners, L.P. ⁽⁵⁾ | 1,302 | 108,250 |
| PAA Natural Gas Storage, L.P. | 261 | 6,367 |
| PAA Natural Gas Storage, L.P. Unregistered ⁽³⁾ | 1,402 | 31,841 |
| Plains All American Pipeline, L.P. ⁽⁶⁾ | 2,876 | 188,317 |
| Regency Energy Partners L.P. | 3,762 | 104,459 |
| Spectra Energy Partners, L.P. | 813 | 26,715 |
| Sunoco Logistics Partners L.P. | 283 | 25,076 |
| Targa Resources Partners L.P. | 1,243 | 42,586 |
| Transmontaigne Partners L.P. | 614 | 24,408 |
| Western Gas Partners L.P. | 1,638 | 59,369 |
| Williams Partners L.P. | 3,008 | 155,979 |
| | | 2,309,460 |
| MLP Affiliates⁽²⁾ | 13.9% | |

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| | | |
|---|-------|---------|
| Enbridge Energy Management, L.L.C. ⁽⁴⁾ | 1,043 | 69,767 |
| Kinder Morgan Management, LLC ⁽⁴⁾ | 3,099 | 203,331 |
| | | 273,098 |
| General Partner MLP 13.6% | | |
| Alliance Holdings GP L.P. | 1,092 | 60,213 |
| Energy Transfer Equity, L.P. | 2,810 | 112,916 |
| Penn Virginia GP Holdings, L.P. | 2,211 | 58,821 |
| Plains All American GP LLC Unregistered ^{(a)(6)} | 24 | 36,974 |
| | | 268,924 |
| Propane MLP 8.4% | | |
| Inergy, L.P. ⁽⁵⁾ | 4,007 | 166,215 |

See accompanying notes to financial statements.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
SCHEDULE OF INVESTMENTS
FEBRUARY 28, 2011
(amounts in 000 s, except number of option contracts)
(UNAUDITED)

| Description | No. of Shares/Units | Value |
|--|------------------------|------------------|
| Shipping MLP 7.5% | | |
| Capital Product Partners L.P. | 2,646 | \$ 25,721 |
| Navios Maritime Partners L.P. | 1,685 | 33,465 |
| Teekay LNG Partners L.P. | 1,182 | 45,018 |
| Teekay Offshore Partners L.P. | 1,536 | 44,194 |
| | | 148,398 |
| Midstream & Other 3.9% | | |
| Clearwater Trust ⁽³⁾⁽⁶⁾⁽⁷⁾ | N/A | 3,980 |
| Kinder Morgan, Inc. ⁽⁸⁾ | 1,021 | 31,140 |
| Knightsbridge Tankers Ltd. | 184 | 4,476 |
| ONEOK, Inc. | 385 | 24,840 |
| Teekay Tankers Ltd. | 1,168 | 12,483 |
| | | 76,919 |
| Upstream MLP 1.7% | | |
| EV Energy Partners, L.P. | 254 | 11,603 |
| Legacy Reserves L.P. | 701 | 21,751 |
| | | 33,354 |
| Coal MLP 0.2% | | |
| Penn Virginia Resource Partners, L.P. | 157 | 4,481 |
| Total Equity Investments (Cost \$1,907,863) | | 3,280,849 |

| | Interest Rate | Maturity Date | Principal Amount | |
|----------------------------------|------------------|------------------|---------------------|--------|
| Debt Investments 1.7% | | | | |
| Midstream 1.3% | | | | |
| Crestwood Holdings Partners, LLC | ⁽⁹⁾ | 10/1/16 | \$ 6,151 | 6,366 |
| El Paso Corporation | 7.750% | 1/15/32 | 5,000 | 5,294 |
| Genesis Energy, L.P. | 7.875 | 12/15/18 | 14,500 | 14,863 |

| | | | | |
|---|-------|----------|-------|-----------|
| | | | | 26,523 |
| Upstream 0.4% | | | | |
| Breitbart Energy Partners L.P. | 8.625 | 10/15/20 | 6,375 | 6,702 |
| Total Debt Investments (Cost \$31,993) | | | | 33,225 |
| Total Long-Term Investments (Cost \$1,939,856) | | | | 3,314,074 |
| Short-Term Investment 0.4% | | | | |
| Repurchase Agreements 0.4% | | | | |
| J.P. Morgan Securities Inc. (Agreement dated 2/28/11 to be repurchased at \$7,161), collateralized by \$10,380 in U.S. Treasury securities (Cost \$7,161) | 0.050 | 3/1/11 | | 7,161 |
| Total Investments 168.3% (Cost \$1,947,017) | | | | 3,321,235 |

See accompanying notes to financial statements.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
SCHEDULE OF INVESTMENTS
FEBRUARY 28, 2011
(amounts in 000 s, except number of option contracts)
(UNAUDITED)

| Description | No. of Contracts | Value |
|--|---------------------|--------------|
| Liabilities | | |
| Call Option Contracts Written⁽¹⁰⁾ | | |
| Midstream MLP | | |
| Duncan Energy Partners L.P., call option expiring 3/18/11 @ \$40.00 | 615 | \$ (55) |
| ONEOK Partners, L.P., call option expiring 3/18/11 @ \$80.00 | 1,425 | (492) |
| | | (547) |
| Propane MLP | | |
| Inergy, L.P., call option expiring 3/18/11 @ \$40.00 | 1,386 | (232) |
| Total Call Option Contracts Written (Premiums Received \$405) | | (779) |
| Revolving Credit Facility | | (56,000) |
| Senior Unsecured Notes | | (620,000) |
| Mandatory Redeemable Preferred Stock at liquidation value | | (160,000) |
| Deferred Tax Liability | | (494,428) |
| Other Liabilities | | (27,409) |
| Total Liabilities | | (1,358,616) |
| Other Assets | | 11,321 |
| Total Liabilities in Excess of Other Assets | | (1,347,295) |
| Net Assets Applicable to Common Stockholders | | \$ 1,973,940 |

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

(2) Includes limited liability companies.

(3) Fair valued securities, restricted from public sale. See Notes 2, 3 and 7 in Notes to Financial Statements.

(4) Distributions are paid-in-kind.

(5) Security or a portion thereof is segregated as collateral on option contracts written.

(6)

The Company believes that it may be an affiliate of the Clearwater Trust and that it is an affiliate of Plains All American Pipeline, L.P. and Plains All American GP LLC.

- (7) On September 28, 2010, the Bankruptcy Court finalized the plan of reorganization of Clearwater Natural Resources, L.P. (Clearwater). As part of the plan of reorganization, the Company received an interest in the Creditors Trust of Miller Bros. Coal, LLC (Clearwater Trust) consisting of cash and a coal royalty interest as consideration for its unsecured loan to Clearwater. See Notes 5 and 7 in Notes to Financial Statements.
- (8) Security is not currently paying cash distributions but is expected to pay cash distributions within the next 12 months.
- (9) Floating rate first lien senior secured term loan. Security pays interest at a rate of LIBOR + 850 basis points, with a LIBOR floor of 2% (10.50% as of February 28, 2011).
- (10) Security is non-income producing.

See accompanying notes to financial statements.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
STATEMENT OF ASSETS AND LIABILITIES
FEBRUARY 28, 2011
(amounts in 000 s, except share and per share amounts)
(UNAUDITED)

ASSETS

| | |
|--|------------------|
| Investments at fair value: | |
| Non-affiliated (Cost \$1,829,970) | \$ 3,084,803 |
| Affiliated (Cost \$109,886) | 229,271 |
| Repurchase agreements (Cost \$7,161) | 7,161 |
| Total investments (Cost \$1,947,017) | 3,321,235 |
| Cash | 779 |
| Deposits with brokers | 292 |
| Receivable for securities sold | 1,880 |
| Interest, dividends and distributions receivable | 1,548 |
| Deferred debt issuance and preferred stock offering costs and other assets | 6,822 |
| Total Assets | 3,332,556 |

LIABILITIES

| | |
|---|------------------|
| Revolving credit facility | 56,000 |
| Payable for securities purchased | 7,595 |
| Investment management fee payable | 10,681 |
| Accrued directors' fees and expenses | 51 |
| Call option contracts written (Premiums received \$405) | 779 |
| Accrued expenses and other liabilities | 9,082 |
| Deferred tax liability | 494,428 |
| Senior unsecured notes | 620,000 |
| Mandatory redeemable preferred stock, \$25.00 liquidation value per share (6,400,000 shares issued and outstanding) | 160,000 |
| Total Liabilities | 1,358,616 |

NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS **\$ 1,973,940**

NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS CONSIST OF

| | |
|---|-----------|
| Common stock, \$0.001 par value (68,713,481 shares issued and outstanding, 193,590,000 shares authorized) | \$ 69 |
| Paid-in capital | 1,222,777 |
| Accumulated net investment loss, net of income taxes, less dividends | (227,278) |
| Accumulated realized gains on investments, options, and interest rate swap contracts, net of income taxes | 116,882 |
| Net unrealized gains on investments and options, net of income taxes | 861,490 |

NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS **\$ 1,973,940**

NET ASSET VALUE PER COMMON SHARE \$ 28.73

See accompanying notes to financial statements.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
STATEMENT OF OPERATIONS
FOR THE THREE MONTHS ENDED FEBRUARY 28, 2011
(amounts in 000 s)
(UNAUDITED)

INVESTMENT INCOME**Income**

Dividends and distributions:

| | |
|----------------------------|-----------|
| Non-affiliated investments | \$ 38,786 |
| Affiliated investments | 3,186 |

| | |
|-----------------------------------|----------|
| Total dividends and distributions | 41,972 |
| Return of capital | (36,990) |

| | |
|---------------------------------|-------|
| Net dividends and distributions | 4,982 |
| Interest and other income | 1,487 |

| | |
|-------------------------|-------|
| Total Investment Income | 6,469 |
|-------------------------|-------|

Expenses

| | |
|------------------------------|--------|
| Investment management fees | 10,680 |
| Administration fees | 311 |
| Professional fees | 144 |
| Custodian fees | 93 |
| Reports to stockholders | 84 |
| Directors' fees and expenses | 40 |
| Insurance | 49 |
| Other expenses | 424 |

| | |
|---|--------|
| Total Expenses Before Interest Expense, Preferred Distributions and Taxes | 11,825 |
|---|--------|

| | |
|--|-------|
| Interest expense and amortization of debt issuance costs | 7,812 |
|--|-------|

| | |
|--|-------|
| Distributions on mandatory redeemable preferred stock and amortization of offering costs | 2,242 |
|--|-------|

| | |
|-----------------------------|--------|
| Total Expenses Before Taxes | 21,879 |
|-----------------------------|--------|

| | |
|---|-----------------|
| Net Investment Loss Before Taxes | (15,410) |
|---|-----------------|

| | |
|----------------------|-------|
| Deferred tax benefit | 5,748 |
|----------------------|-------|

| | |
|----------------------------|----------------|
| Net Investment Loss | (9,662) |
|----------------------------|----------------|

REALIZED AND UNREALIZED GAINS (LOSSES)**Net Realized Gains**

| | |
|----------------------------|--------|
| Investments non-affiliated | 48,532 |
|----------------------------|--------|

| | |
|------------------------|--|
| Investments affiliated | |
|------------------------|--|

| | |
|---------|-------|
| Options | 1,579 |
|---------|-------|

| | |
|----------------------|----------|
| Deferred tax expense | (18,691) |
|----------------------|----------|

| | |
|---|-------------------|
| Net Realized Gains | 31,420 |
| Net Change in Unrealized Gains (Losses) | |
| Investments non-affiliated | 227,516 |
| Investments affiliated | 16,658 |
| Options | (799) |
| Deferred tax expense | (90,774) |
| Net Change in Unrealized Gains | 152,601 |
| Net Realized and Unrealized Gains | 184,021 |
| NET INCREASE IN NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS RESULTING FROM OPERATIONS | \$ 174,359 |

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 Three Months Ended February 28, 2011 (Unaudited) | For the Fiscal Year Ended November 30, 2010 |
|---|---|--|
| OPERATIONS | | |
| Net investment loss, net of tax ⁽¹⁾ | \$ (9,662) | \$ (26,342) |
| Net realized gains, net of tax | 31,420 | 34,340 |
| Net change in unrealized gains, net of tax | 152,601 | 487,184 |
| Net Increase in Net Assets Resulting from Operations | 174,359 | 495,182 |
| DIVIDENDS/DISTRIBUTIONS TO AUCTION RATE PREFERRED STOCKHOLDERS⁽¹⁾ | | |
| Dividends | | (177) ⁽²⁾ |
| Distributions - return of capital | | |
| Dividends/Distributions to Preferred Stockholders | | (177) |
| DIVIDENDS/DISTRIBUTIONS TO COMMON STOCKHOLDERS | | |
| Dividends | (21,758) ⁽³⁾ | (49,829) ⁽²⁾ |
| Distributions - return of capital | (11,451) ⁽³⁾ | (64,293) ⁽²⁾ |
| Dividends/Distributions to Common Stockholders | (33,209) | (114,122) |
| CAPITAL STOCK TRANSACTIONS | | |
| Proceeds from common stock offerings of 15,846,650 shares of common stock | | 396,211 |
| Underwriting discounts and offering expenses associated with the issuance of common stock | (34) | (15,169) |
| Issuance of 242,080 and 1,045,210 shares of common stock from reinvestment of distributions, respectively | 6,933 | 25,689 |
| Net Increase in Net Assets Applicable to Common Stockholders from Capital Stock Transactions | 6,899 | 406,731 |
| Total Increase in Net Assets Applicable to Common Stockholders | 148,049 | 787,614 |
| NET ASSETS ATTRIBUTABLE TO COMMON STOCKHOLDERS | | |
| Beginning of period | 1,825,891 | 1,038,277 |
| End of period | \$ 1,973,940 | \$ 1,825,891 |

- (1) Distributions on the Company's mandatory redeemable preferred stock are treated as an operating expense under GAAP and are included in the calculation of net investment loss. See Note 2 Significant Accounting Policies. The Company estimates that the distribution in the amount of \$2,168 paid to mandatory redeemable preferred stockholders during the three months ended February 28, 2011 will be a dividend (ordinary income). This estimate is based solely on the Company's operating results during the period and does not reflect the expected result during the fiscal year. The actual characterization of the mandatory redeemable preferred stock distributions made during the period will not be determinable until after the end of the fiscal year when the Company can determine earnings and profits and, therefore, the characterization may differ from the preliminary estimates. Distributions in the amount of \$3,644 paid to mandatory redeemable preferred

See accompanying notes to financial statements.

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stockholders for the fiscal year ended November 30, 2010 were characterized as dividend income for such stockholders. This characterization is based on the Company's earnings and profits.

- (2) The information presented in each of these items is a characterization of a portion of the total dividends and distributions paid to auction rate preferred stockholders and common stockholders for the fiscal year ended November 30, 2010 as either dividends (ordinary income) or distributions (return of capital). This characterization is based on the Company's earnings and profits.
- (3) This is an estimate of the characterization of the distributions paid to common stockholders for the three months ended February 28, 2011 as either a dividend (ordinary income) or distributions (return of capital). This estimate is based on the Company's operating results during the period. The actual characterization of the common stock distributions made during the period will not be determined until after the end of the fiscal year when the Company can determine earnings and profits and, therefore, the characterization may differ from the preliminary estimates.

See accompanying notes to financial statements.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
STATEMENT OF CASH FLOWS
FOR THE THREE MONTHS ENDED FEBRUARY 28, 2011
(amounts in 000 s)
(UNAUDITED)

CASH FLOWS FROM OPERATING ACTIVITIES

| | |
|---|-----------------|
| Net increase in net assets resulting from operations | \$ 174,359 |
| Adjustments to reconcile net increase in net assets resulting from operations to net cash used in operating activities: | |
| Net deferred tax expense | 103,717 |
| Return of capital distributions | 36,990 |
| Net realized gains | (50,111) |
| Unrealized gains | (243,375) |
| Accretion of bond discount, net | (8) |
| Purchase of long-term investments | (323,748) |
| Proceeds from sale of long-term investments | 264,902 |
| Proceeds from sale of short-term investments, net | 9,159 |
| Decrease in deposits with brokers | 789 |
| Increase in receivable for securities sold | (980) |
| Decrease in interest, dividends and distributions receivable | 237 |
| Amortization of deferred debt issuance costs | 355 |
| Amortization of mandatory redeemable preferred stock issuance costs | 74 |
| Decrease in other assets, net | 54 |
| Increase in payable for securities purchased | 1,951 |
| Increase in investment management fee payable | 1,316 |
| Decrease in accrued directors' fees and expenses | (3) |
| Decrease in option contracts written, net | (842) |
| Decrease in accrued expenses and other liabilities | (4,067) |
| Net Cash Used in Operating Activities | (29,231) |

CASH FLOWS FROM FINANCING ACTIVITIES

| | |
|--|---------------|
| Proceeds from the revolving credit facility | 56,000 |
| Offering costs associated with common stock | (34) |
| Issuance costs associated with revolving credit facility | (225) |
| Cash distributions paid to common stockholders | (26,276) |
| Net Cash Provided by Financing Activities | 29,465 |

| | |
|---------------------------------|---------------|
| NET INCREASE IN CASH | 234 |
| CASH BEGINNING OF PERIOD | 545 |
| CASH END OF PERIOD | \$ 779 |

Supplemental disclosure of cash flow information:

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Non-cash financing activities not included herein consist of reinvestment of distributions of \$6,933 pursuant to the Company's dividend reinvestment plan. During the three months ended February 28, 2011, interest paid was \$11,820.

The Company received \$5,500 paid-in-kind dividends during the three months ended February 28, 2011. See Note 2 Significant Accounting Policies.

See accompanying notes to financial statements.

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

| For the Three Months Ended | For the Fiscal Year Ended | | | | | |
|---|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| February 28, 2011 | November 30, | | | | | |
| (Unaudited) | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 |
| \$ 26.67 | \$ 20.13 | \$ 14.74 | \$ 30.08 | \$ 28.99 | \$ 25.07 | \$ 23.91 |
| (0.14) | (0.44) | (0.33) | (0.73) | (0.73) | (0.62) | (0.17) |
| 2.69 | 8.72 | 7.50 | (12.56) | 3.58 | 6.39 | 2.80 |
| 2.55 | 8.28 | 7.17 | (13.29) | 2.85 | 5.77 | 2.63 |
| | | | | (0.10) | | (0.05) |
| | | (0.01) | (0.10) | | (0.10) | |
| | | (0.01) | (0.10) | (0.10) | (0.10) | (0.05) |
| (0.32) | (0.84) | | | (0.09) | | (0.13) |
| (0.17) | (1.08) | (1.94) | (1.99) | (1.84) | (1.75) | (1.37) |
| (0.49) | (1.92) | (1.94) | (1.99) | (1.93) | (1.75) | (1.50) |
| | | | | | | (0.03) |
| | 0.16 | 0.12 | | 0.26 | | 0.11 |

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| | | | | | | | | | | | | | |
|----|----------------------|---------|-----------|---------|-----------|---------|-----------|----|-----------|----|-----------|----|---------|
| | | 0.02 | 0.05 | 0.04 | 0.01 | | | | | | | | |
| | | 0.18 | 0.17 | 0.04 | 0.27 | | 0.08 | | | | | | |
| \$ | 28.73 | \$ | 26.67 | \$ | 20.13 | \$ | 14.74 | \$ | 30.08 | \$ | 28.99 | \$ | 25.07 |
| \$ | 30.91 | \$ | 28.49 | \$ | 24.43 | \$ | 13.37 | \$ | 28.27 | \$ | 31.39 | \$ | 24.33 |
| | 10.3% ⁽⁷⁾ | 26.0% | 103.0% | (48.8)% | (4.4)% | 37.9% | 3.7% | | | | | | |
| \$ | 1,973,940 | \$ | 1,825,891 | \$ | 1,038,277 | \$ | 651,156 | \$ | 1,300,030 | \$ | 1,103,392 | \$ | 932,090 |
| | 2.3% | 2.1% | 2.1% | 2.2% | 2.3% | 3.2% | 1.2% | | | | | | |
| | 0.3 | 0.2 | 0.4 | 0.3 | 0.2 | 0.2 | 0.3 | | | | | | |
| | 2.6 | 2.3 | 2.5 | 2.5 | 2.5 | 3.4 | 1.5 | | | | | | |
| | 2.2 | 1.9 | 2.5 | 3.4 | 2.3 | 1.7 | 0.8 | | | | | | |
| | 22.6 | 20.5 | 25.4 | (9) | 3.5 | 13.8 | 6.4 | | | | | | |
| | 27.4% | 24.7% | 30.4% | 5.9% | 8.3% | 18.9% | 8.7% | | | | | | |
| | (2.1)% | (1.8)% | (2.0)% | (2.8)% | (2.3)% | (2.4)% | (0.7)% | | | | | | |
| | 9.4% ⁽⁷⁾ | 34.6% | 43.2% | (51.2)% | 7.3% | 21.7% | 10.0% | | | | | | |
| | 8.4% ⁽⁷⁾ | 18.7% | 28.9% | 6.7% | 10.6% | 10.0% | 25.6% | | | | | | |
| \$ | 1,860,608 | \$ | 1,432,266 | \$ | 774,999 | \$ | 1,143,192 | \$ | 1,302,425 | \$ | 986,908 | \$ | 870,672 |
| | 620,000 | 620,000 | 370,000 | 304,000 | 505,000 | 320,000 | 260,000 | | | | | | |
| | 56,000 | | | | 97,000 | 17,000 | | | | | | | |

| | | | | | | | |
|------------|------------|------------|------------|------------|------------|------------|--------|
| | | | 75,000 | 75,000 | 75,000 | 75,000 | 75,000 |
| 160,000 | 160,000 | | | | | | |
| 68,592,441 | 60,762,952 | 46,894,632 | 43,671,666 | 41,134,949 | 37,638,314 | 34,077,731 | |
| 415.7% | 420.3% | 400.9% | 338.9% | 328.4% | 449.7% | 487.3% | |
| 336.1% | 334.1% | 333.3% | 271.8% | 292.0% | 367.8% | 378.2% | |
| \$ 9.71 | \$ 7.70 | \$ 6.79 | \$ 11.52 | \$ 12.14 | \$ 8.53 | \$ 5.57 | |

See accompanying notes to financial statements.

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**KAYNE ANDERSON MLP INVESTMENT COMPANY
FINANCIAL HIGHLIGHTS**

(amounts in 000 s, except share and per share amounts)

- (1) Commencement of operations.
- (2) Based on average shares of common stock outstanding.
- (3) 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.
- (4) Distributions on the Company's mandatory redeemable preferred stock are treated as an operating expense under GAAP and are included in the calculation of net investment loss. See Note 2 Significant Accounting Policies.
- (5) The information presented for the three months ended February 28, 2011 is an estimate of the characterization of the distribution paid and is based on the Company's operating results during the period. The information presented for each of the other periods is a characterization of the total 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.
- (6) 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 distributions at actual prices pursuant to the Company's dividend reinvestment plan.
- (7) Not annualized.
- (8) Unless otherwise noted, ratios are annualized for periods of less than one full year.
- (9) For the year ended November 30, 2008, the Company accrued deferred income tax benefits of \$339,991 (29.7% of average net assets) primarily related to unrealized losses on investments. Realization of a deferred tax benefit is dependent on whether there will be sufficient taxable income of the appropriate character within the carryforward periods to realize a portion or all of the deferred tax benefit. No deferred income tax benefit has been included for the purpose of calculating total expense.
- (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 and mandatory redeemable preferred stock divided by the aggregate amount of senior notes and any other senior securities representing indebtedness. Under the 1940 Act, the Company may not declare or make any distribution on its common stock nor can it incur additional indebtedness if, at the time of such declaration or incurrence, its 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) of the 1940 Act. Represents the value of total assets less all liabilities not represented by senior notes, any other senior securities representing indebtedness and preferred stock divided by the aggregate amount of senior notes, any other senior securities representing indebtedness and preferred stock. Under the 1940 Act, the Company may not declare or make any distribution on its common stock nor can it issue additional preferred stock if at the time of such declaration or issuance, its asset coverage

with respect to all senior securities would be less than 200%. In addition to the limitations under the 1940 Act, the Company, under the terms of its mandatory redeemable preferred stock, would not be able to declare or pay any distributions on its common stock if such declaration would cause its asset coverage with respect to all senior securities to be less than 225%. For purposes of these tests, 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
(amounts in 000 s, except option contracts, 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 as of 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. Cash and Cash Equivalents Cash and cash equivalents include short-term, liquid investments with an original maturity of three months or less and include money market fund accounts and repurchase agreements. Cash and cash equivalents are carried at cost, which approximates fair value.

C. Calculation of Net Asset Value The Company determines its net asset value no less frequently than as of the last day of each month based on the most recent close of regular session trading on the NYSE, and makes its net asset value available for publication monthly. Currently, the Company calculates its net asset value on a weekly basis. Net asset value is computed by dividing the value of the Company's assets (including accrued interest and distributions), less all of its liabilities (including accrued expenses, distributions payable, current, 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.

D. 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 ask prices on such day. 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. Debt securities that are considered bonds are valued by using the mean of the bid and ask prices provided by an independent pricing service. For debt securities that are considered bank loans, the fair market value is determined by the mean of the bid and ask prices provided by the syndicate bank or principal market

maker. When price quotes are not available, fair market value will be based on prices of comparable securities. In certain cases, the Company may not be able to purchase or sell debt securities at the quoted prices due to the lack of liquidity for these securities.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
NOTES TO FINANCIAL STATEMENTS
(amounts in 000 s, except option contracts, share and per share amounts)
(UNAUDITED)

Exchange-traded options and futures contracts are valued at the last sales price at the close of trading in the market where such contracts are principally traded or, if there was no sale on the applicable exchange on such day, at the mean between the quoted bid and ask price as of the close of such exchange.

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

Investment Team Valuation. The applicable investments are initially valued by KA Fund Advisors, LLC (KAFAs 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 KAFAs. 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 quarter basis, and stand for intervening periods of time.

Valuation Committee. The Valuation Committee meets on or about the end of each quarter to consider new valuations presented by KAFAs, if any, which were made in accordance with the valuation procedures in such quarter. Between meetings of the Valuation Committee, a senior officer of KAFAs 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 KAFAs, the Board of Directors, or the Valuation Committee itself. All valuation determinations of the Valuation Committee are subject to ratification by the Board of Directors 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 KAFAs 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 fair 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, KAFAs may determine an applicable discount in accordance with a methodology approved by the Valuation Committee.

At February 28, 2011, the Company held 5.2% of its net assets applicable to common stockholders (3.1% of total assets) in securities valued at fair value, as determined pursuant to procedures adopted by the Board of Directors, with fair value of \$102,698. See Note 7 Restricted Securities.

E. 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 KAFA 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. KAFA monitors daily the mark-to-market of the value of the collateral, and, if necessary, requires the seller to

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KAYNE ANDERSON MLP INVESTMENT COMPANY
NOTES TO FINANCIAL STATEMENTS
(amounts in 000 s, except option contracts, share and per share amounts)
(UNAUDITED)

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.

F. 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 28, 2011, the Company had no open short sales.

G. Security Transactions Security transactions are accounted for on the date these securities are purchased or sold (trade date). Realized gains and losses are reported on an identified cost basis.

H. Return of Capital Estimates Distributions received from the Company's investments in MLPs generally are comprised of income and return of capital. 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.

The following table sets forth the Company's estimated total return of capital portion of the distributions received from its investments. The return of capital portion of the distributions is a reduction to investment income, results in an equivalent reduction in the cost basis of the associated investments and increases Net Realized Gains and Net Change in Unrealized Gains.

| | Three Months Ended February 28, 2011 |
|--|---|
| Return of capital portion of distributions received | 88% |
| Return of capital attributable to Net Realized Gains | \$ 3,712 |
| Return of capital attributable to Net Change in Unrealized Gains | 33,278 |

| | | |
|-------------------------|----|--------|
| Total return of capital | \$ | 36,990 |
|-------------------------|----|--------|

I. Investment Income The Company records dividends and distributions on the ex-dividend date. Interest income is recognized on the accrual basis, including amortization of premiums and accretion of discounts. When investing in securities with payment in-kind interest, the Company will accrue interest income during the life of the security even though it will not be receiving cash as the interest is accrued. To the extent that interest income to be received is not expected to be realized, a reserve against income is established. During the three months ended February 28, 2011, the Company did not have a reserve against interest income, since all interest income accrued is expected to be received.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
NOTES TO FINANCIAL STATEMENTS
(amounts in 000 s, except option contracts, share and per share amounts)
(UNAUDITED)

Many of the Company's debt securities were purchased at a discount or premium to the par value of the security. The non-cash accretion of a discount to par value increases interest income while the non-cash amortization of a premium to par value decreases interest income. The accretion of a discount and amortization of premiums are based on the effective interest method. The amount of these non-cash adjustments can be found in the Company's Statement of Cash Flows. The non-cash accretion of a discount increases the cost basis of the debt security, which results in an offsetting unrealized loss. The non-cash amortization of a premium decreases the cost basis of the debt security which results in an offsetting unrealized gain. To the extent that par value is not expected to be realized, the Company discontinues accruing the non-cash accretion of the discount to par value of the debt security.

The Company receives paid-in-kind dividends in the form of additional units from its investment in Buckeye Partners, L.P. (Class B Units), Enbridge Energy Management, L.L.C. and Kinder Morgan Management, LLC. In connection with the purchase of units directly from PAA Natural Gas Storage, L.P. (PNG) in a PIPE transaction, the Company was entitled to the distribution paid to unitholders of record on February 4, 2011, even though such investment had not closed at such date. Pursuant to the purchase agreement, the purchase price for the PNG units was reduced by the amount of such dividend, which had the effect of paying such distribution in additional units. The additional units are not reflected in investment income during the period received but are recorded as unrealized gains. During the three months ended February 28, 2011, the Company received the following stock dividends.

| | Three Months Ended February 28, 2011 |
|--|---|
| Buckeye Partners, L.P. (Class B Units) | \$ 520 |
| Enbridge Energy Management, L.L.C. | 1,055 |
| Kinder Morgan Management, LLC | 3,442 |
| PAA Natural Gas Storage, L.P. | 483 |
| Total stock dividends | \$ 5,500 |

J. Distributions to Stockholders Distributions to common stockholders are recorded on the ex-dividend date. Distributions to mandatory redeemable preferred stockholders are accrued on a daily basis as described in Note 12 Preferred Stock. As required by the Distinguishing Liabilities from Equity topic of the Financial Accounting Standards Board (FASB) Accounting Standards Codification, the Company includes the accrued distributions on its mandatory redeemable preferred stock as an operating expense due to the fixed term of this obligation. For tax purposes the payments made to the holders of the Company's mandatory redeemable preferred stock are treated as dividends or distributions.

The estimated characterization of the distributions paid to preferred and common stockholders will be 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 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, the characterization may differ from the preliminary estimates.

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

L. 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

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KAYNE ANDERSON MLP INVESTMENT COMPANY
NOTES TO FINANCIAL STATEMENTS
(amounts in 000 s, except option contracts, share and per share amounts)
(UNAUDITED)

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 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 and capital losses. To the extent the Company has a deferred tax asset, consideration is given as to whether or not a valuation allowance is required. The need to establish a valuation allowance for deferred tax assets is assessed periodically by the Company based on the Income Tax Topic of the FASB Accounting Standards Codification that it is more likely than not that some portion or all of the deferred tax asset will not be realized. In the assessment for a valuation allowance, consideration is given to all positive and negative evidence related to the realization of the deferred tax asset. This assessment considers, among other matters, the nature, frequency and severity of current and cumulative losses, forecasts of future profitability (which are highly dependent on future cash distributions from the Company's MLP holdings), the duration of statutory carryforward periods and the associated risk that operating and capital loss carryforwards may expire unused.

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. From time to time, as new information becomes available, the Company modifies its estimates or assumptions regarding the deferred tax liability.

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 28, 2011, 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.

M. Derivative Financial Instruments The Company may utilize derivative financial instruments in its operations.

Interest rate swap contracts. The Company may use interest rate swap contracts to hedge against increasing interest expense on its leverage resulting from increases in short term interest rates. The Company does not hedge any interest rate risk associated with portfolio holdings. Interest rate transactions the Company uses for hedging purposes expose it to certain risks that differ from the risks associated with its portfolio holdings. 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 an interest rate swap defaults, the Company would not be able to use the anticipated net receipts under the interest rate swap to offset its cost of financial leverage.

Interest rate swap contracts 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 or termination payments 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. See Note 8 Derivative Financial Instruments.

Option contracts. The Company is also exposed to financial market risks including changes in the valuations of its investment portfolio. The Company may purchase or write (sell) call options. A call option on a security is a contract

that gives the holder of the option, in return for a premium, the right to buy from the writer of the option the security underlying the option at a specified exercise price at any time during the term of the option.

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The Company would normally purchase call options in anticipation of an increase in the market value of securities of the type in which it may invest. The Company would ordinarily realize a gain on a purchased call option if, during the option period, the value of such securities exceeded the sum of the exercise price, the premium paid and transaction costs; otherwise the Company would realize either no gain or a loss on the purchased call option. The Company may also purchase put option contracts. If a purchased put option is exercised, the premium paid increases the cost basis of the securities sold by the Company.

The Company may also write (sell) call options with the purpose of generating realized gains or reducing its ownership of certain securities. The writer of an option on a security has the obligation upon exercise of the option to deliver the underlying security upon payment of the exercise price.

When the Company writes a call 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. If the Company repurchases a written call option prior to its exercise, the difference between the premium received and the amount paid to repurchase the option is treated as a realized gain or 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. 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. See Note 8 Derivative Financial Instruments.

N. *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

As required by the Fair Value Measurement and Disclosures of the FASB Accounting Standards Codification, the Company has performed an analysis of all assets and liabilities measured at fair value to determine the significance and character of all inputs to their fair value determination.

The fair value hierarchy 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 traded on a national exchange 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.

Note that the valuation levels below are not necessarily an indication of the risk or liquidity associated with the underlying investment. For instance, the Company's repurchase agreements, which are collateralized by

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U.S. Treasury notes, are generally high quality and liquid; however, the Company reflects these repurchase agreements as Level 2 because the inputs used to determine fair value may not always be quoted prices in an active market.

The following table presents the Company's assets and liabilities measured at fair value on a recurring basis at February 28, 2011. The Company presents these assets by security type and description on its Schedule of Investments.

| | Total | Quoted Prices in Active Markets (Level 1) | Prices with Other Observable Inputs (Level 2) | Unobservable Inputs (Level 3)⁽¹⁾ |
|---|--------------|--|--|--|
| <u>Assets at Fair Value</u> | | | | |
| Equity investments | \$ 3,280,849 | \$ 3,178,151 | \$ | \$ 102,698 |
| Debt investments | 33,225 | | 33,225 | |
| Repurchase agreements | 7,161 | | 7,161 | |
| Total assets at fair value | \$ 3,321,235 | \$ 3,178,151 | \$ 40,386 | \$ 102,698 |
| <u>Liabilities at Fair Value</u> | | | | |
| Call option contracts written | \$ 779 | \$ | \$ 779 | \$ |

(1) The Company's investments in Level 3 represent its investments in Buckeye Partners, L.P. (Class B Units), Clearwater Trust, PAA Natural Gas Storage, L.P. (Unregistered Units), and Plains All American GP LLC.

The Company did not have any liabilities that were measured at fair value on a recurring basis using significant unobservable inputs (Level 3) at February 28, 2011 or at November 30, 2010. For the three months ended February 28, 2011, there were no transfers between Level 1 and Level 2.

In January 2010, the FASB issued Accounting Standards Update (ASU) No. 2010-06 Improving Disclosures about Fair Value Measurements. ASU No. 2010-06 amends FASB Accounting Standards Codification Topic, Fair Value Measurements and Disclosures, to require additional disclosures regarding fair value measurements. Certain disclosures required are effective for the Company's fiscal year beginning December 1, 2011, and for interim periods within that fiscal year. Such disclosures will present separately the Level 3 purchases, sales, issuances and settlements on a gross basis instead of one net amount. Management will continue to evaluate the impact ASU No. 2010-6 for the required disclosures.

The following table presents the Company's assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the three months ended February 28, 2011.

| Assets at Fair Value Using Unobservable Inputs (Level 3) | Long-Term Investments |
|---|------------------------------|
| Balance November 30, 2010 | \$ 63,514 |
| Transfers out of Level 3 | (88,999) |
| Realized gains/(losses) | |
| Unrealized gains, net | 4,415 |
| Purchases, issuances or settlements | 123,768 |
| Balance February 28, 2011 | \$ 102,698 |

The \$4,415 of unrealized gains presented in the table above for the three months ended February 28, 2011 related to investments that are still held at February 28, 2011, and the Company includes these unrealized gains on the Statement of Operations Net Change in Unrealized Gains.

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The purchases, issuances or settlements of \$123,768 for the three months ended February 28, 2011 relate to the Company's investments in Buckeye Partners, L.P. (Class B Units), Buckeye Partners, L.P. (Common Units), PAA Natural Gas Storage, L.P., Plains All American GP LLC and Clearwater Trust. The Company's investments in the common units of Buckeye Partners, L.P., Inergy, LP and Magellan Midstream Partners, L.P. which are noted as a transfer out of Level 3 in the table above, became registered during the period.

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. Administration Agreement The Company has entered into an administration agreement with Ultimus Fund Solutions, LLC (Ultimus). Pursuant to the administration agreement, Ultimus will provide certain administrative services for the Company. The administration agreement has automatic one-year renewals unless earlier terminated by either party as provided under the terms of the administration agreement.

B. Investment Management Agreement The Company has entered into an investment management agreement with KAFA under which the Adviser, subject to the overall supervision of the Company's Board of Directors, manages the day-to-day operations of, and provides investment advisory services to, the Company. For providing these services, the Adviser receives a management fee from the Company. On June 15, 2010, the Company renewed its agreement with the Adviser for a period of one year. The agreement may be renewed annually upon approval of the Company's Board of Directors. For the three months ended February 28, 2011, the Company paid 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 and other borrowings and excludes any net deferred tax asset), minus the sum of the Company's accrued and unpaid distributions on any outstanding common stock and accrued and unpaid distributions on any outstanding preferred stock and accrued liabilities (other than liabilities associated with borrowing or leverage by the Company and any accrued taxes, including, a deferred tax liability). 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.

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C. 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 Securities and Exchange Commission (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 Trust At February 28, 2011, the Company held approximately 60% of the Clearwater Trust. The Company believes that it is an affiliate of the trust under the 1940 Act by virtue of its majority interest in the trust.

Plains All American GP LLC and Plains All American Pipeline, L.P. Robert V. Sinnott is Chief Executive Officer 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 (PAA GP), the general partner of Plains All American Pipeline, L.P. (PAA). Members of senior management of KACALP and KAFA and various affiliated funds managed by KACALP, including the Company, own units of PAA GP. The Fund believes that it is an affiliate of PAA GP and PAA under the 1940 Act by virtue of (i) the Company and other affiliated Kayne Anderson funds' ownership interests in PAA GP and (ii) Mr. Sinnott's participation on the board of PAA GP. PAA Natural Gas Storage, L.P. (PNG) is an affiliate of PAA and PAA GP. PAA owns 62% of PNG's limited partner units and owns PNG's general partner. The Company does not believe it is an affiliate of PNG based on the current facts and circumstances.

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6. Income Taxes

Deferred income taxes reflect (i) taxes on net unrealized gains, 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 28, 2011 are as follows:

| | | |
|--|---------|--------------|
| Deferred tax assets: | | |
| Net operating loss carryforwards | Federal | \$ 42,219 |
| Net operating loss carryforwards | State | 3,413 |
| Capital loss carryforwards | | 35,202 |
| Other | | 105 |
| Deferred tax liabilities: | | |
| Net unrealized gains on investment securities and option contracts | | (563,785) |
| Basis reductions resulting from estimated return of capital | | (11,582) |
| Total deferred tax liability, net | | \$ (494,428) |

At February 28, 2011, the Company had federal net operating loss carryforwards of \$124,456 (deferred tax asset of \$42,219). Realization of the deferred tax assets and net operating loss carryforwards are dependent, in part, on generating sufficient taxable income prior to expiration of the loss carryforwards. If not utilized, \$12,743, \$52,182, \$26,118 and \$33,413 of the net operating loss carryforward will expire in 2026, 2027, 2028 and 2029, respectively. As of February 28, 2011, the Company had federal and state capital loss carryforwards of approximately \$95,168 (deferred tax asset of \$35,202). If not utilized, \$25,499, \$67,669 and \$2,000 loss carryforwards will expire in 2013, 2014 and 2015, respectively. For corporations, capital losses can only be used to offset capital gains and cannot be used to offset ordinary income. In addition, the Company has state net operating losses of \$110,936 (deferred tax asset of \$3,413). These state net operating losses begin to expire in 2011 through 2029.

Although the Company currently has a net deferred tax liability, it periodically reviews the recoverability of its deferred tax assets based on the weight of available evidence. When assessing the recoverability of its deferred tax assets, significant weight is given to the effects of potential future realized and unrealized gains on investments and the period over which these deferred tax assets can be realized, as the expiration dates for the federal capital and operating loss carryforwards range from five to nineteen years.

Based on the Company's assessment, it has determined that it is more likely than not that its deferred tax assets will be realized through future taxable income of the appropriate character. Accordingly, no valuation allowance has been established for the Company's deferred tax assets. The Company will continue to assess the need for a valuation allowance in the future. Significant declines in the fair value of its portfolio of investments may change the Company's assessment regarding the recoverability of its deferred tax assets and may result in a valuation allowance. If a valuation allowance is required to reduce any deferred tax asset in the future, it could have a material impact on the Company's net asset value and results of operations in the period it is recorded.

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Total income taxes were different from the amount computed by applying the federal statutory income tax rate of 35% to the net investment loss and realized and unrealized gains (losses) on investments before taxes for the three months ended February 28, 2011, as follows:

| | Three Months Ended February 28, 2011 |
|--|---|
| Computed expected federal income tax at 35% | \$ 97,326 |
| State income tax, net of federal tax expense | 5,606 |
| Non-deductible distributions on mandatory redeemable preferred stock and other | 785 |
| Total income tax expense | \$ 103,717 |

At February 28, 2011, the cost basis of investments for federal income tax purposes was \$1,799,152, and the net cash received on option contracts written was \$405. The cost basis of investments includes a \$147,865 reduction in basis attributable to the Company's portion of the allocated losses from its MLP investments. At February 28, 2011, gross unrealized appreciation and depreciation of investments and options for federal income tax purposes were as follows:

| | |
|--|----------------|
| Gross unrealized appreciation of investments (including options) | \$ 1,522,920 |
| Gross unrealized depreciation of investments (including options) | (1,211) |
| Net unrealized appreciation of investments before tax | 1,521,709 |
| Net unrealized appreciation of investments after tax | \$ 958,677 |

7. Restricted Securities

From time to time, certain of the Company's investments may be restricted as to resale. For instance, private investments that are not registered under the Securities Act of 1933, as amended, cannot 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 28, 2011, the Company held the following restricted investments:

| | Number of Units, | Percent Percent |
|--|---------------------------------|------------------------|
|--|---------------------------------|------------------------|

| Investment | Security | Acquisition Date | Type of Restriction | Principal (\$ in 000s) | Cost Basis | Fair Value | of Net Assets | of Total Assets |
|--|---------------|------------------|---------------------|------------------------|------------|------------|---------------|-----------------|
| Level 3 Investments⁽¹⁾ | | | | | | | | |
| Buckeye Partners, L.P. | Class B Units | 1/18/2011 | (2) | 535 | \$ 30,000 | \$ 29,903 | 1.5% | 0.9% |
| Clearwater Trust | Trust | (3) | (4) | N/A | 3,266 | 3,980 | 0.2 | 0.1 |
| PAA Natural Gas Storage, L.P. | Common Units | 2/8/2011 | (2) | 1,402 | 29,700 | 31,841 | 1.6 | 1.0 |
| Plains All American GP LLC | Common Units | 12/23/10 | (4) | 24 | 34,928 | 36,974 | 1.9 | 1.1 |
| | | 12/31/10 | | | | | | |
| Total | | | | | \$ 97,894 | \$ 102,698 | 5.2% | 3.1% |
| Level 2 Investments⁽⁵⁾ | | | | | | | | |
| Breitburn Energy Partners L.P. | Senior Notes | 10/1/10 | (2) | \$ 6,375 | \$ 6,452 | \$ 6,702 | 0.3% | 0.2% |
| Crestwood Holdings Partners LLC | Bank Loan | 9/29/10 | (4) | 6,151 | 6,034 | 6,366 | 0.3 | 0.2 |
| Genesis Energy, L.P. | Senior Notes | 11/12/10 | (2) | 14,500 | 14,500 | 14,863 | 0.8 | 0.4 |
| Total | | | | | \$ 26,986 | \$ 27,931 | 1.4% | 0.8% |
| Total of all restricted securities | | | | | \$ 124,880 | \$ 130,629 | 6.6% | 3.9% |

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- (1) Securities are valued using inputs reflecting the Company's own assumptions.
- (2) Unregistered security of a public company.
- (3) On September 28, 2010, the Bankruptcy Court finalized the plan of reorganization of Clearwater. As part of the plan of reorganization, the Company received an interest in the Clearwater Trust consisting of cash and a coal royalty interest as consideration for its unsecured loan to Clearwater. See Note 5 - Agreements and Affiliations.
- (4) Unregistered security of a private company.
- (5) These securities have a fair market value determined by the mean of the bid and ask prices provided by a syndicate bank, principal market maker or an independent pricing service. These securities have limited trading volume and are not listed on a national exchange.

8. Derivative Financial Instruments

As required by the Derivatives and Hedging Topic of the FASB Accounting Standards Codification, below are the derivative instruments and hedging activities of the Company. See Note 2 - Significant Accounting Policies.

Option Contracts Transactions in option contracts for the three months ended February 28, 2011 were as follows:

| | Number of Contracts | Premium |
|---|--------------------------------|----------------|
| Call Options Written | | |
| Options outstanding at beginning of period | 9,550 | \$ 1,247 |
| Options written | 21,650 | 2,401 |
| Options subsequently repurchased ⁽¹⁾ | (15,254) | (2,014) |
| Options exercised | (8,673) | (891) |
| Options expired | (3,847) | (338) |
| Options outstanding at end of period | 3,426 | \$ 405 |

- (1) The price at which the Company subsequently repurchased the options was \$777, which resulted in a realized gain of \$1,237.

Interest Rate Swap Contracts The Company may enter 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 future 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 28, 2011, the Company did not have any interest rate swap contracts outstanding.

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The following table sets forth the fair value of the Company's derivative instruments on the Statement of Assets and Liabilities.

| Derivatives Not Accounted for as | Statement of Assets and Liabilities Location | Fair Value as of February 28, 2011 |
|---|---|---|
| Hedging Instruments | | |
| Call options | Call option contracts written | (\$ 779) |

The following table sets forth the effect of the Company's derivative instruments on the Statement of Operations.

| Derivatives Not Accounted for as Hedging Instruments | Location of Gains/(Losses) on Derivatives Recognized in Income | For the Three Months Ended February 28, 2011 | |
|---|---|--|--|
| | | Net Realized Gains/(Losses) on Derivatives Recognized in Income | Change in Unrealized Gains/(Losses) on Derivatives Recognized in Income |
| Call options | Options | 1,579 | (799) |

9. Investment Transactions

For the three months ended February 28, 2011, the Company purchased and sold securities in the amounts of \$323,748 and \$264,902 (excluding short-term investments and options), respectively.

10. Revolving Credit Facility

On February 25, 2011, the Company increased its existing \$100,000 unsecured revolving credit facility (the Credit Facility) with a syndicate of lenders to \$150,000. The Credit Facility has a three-year commitment maturing on June 11, 2013. The interest rate may vary between LIBOR plus 1.75% to LIBOR plus 3.00%, depending on the Company's asset coverage ratios. Outstanding loan balances will accrue interest daily at a rate equal to one-month LIBOR plus 1.75% based on current asset coverage ratios. The Company will pay a fee of 0.40% on any unused amounts of the Credit Facility. See Financial Highlights for the Company's asset coverage ratios under the 1940 Act.

For the three months ended February 28, 2011, the average amount outstanding under the Credit Facility was \$46,044 with a weighted average interest rate of 2.43%. As of February 28, 2011, the Company had \$56,000 outstanding on the Credit Facility at a weighted average interest rate of 2.23%.

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11. Senior Unsecured Notes

At February 28, 2011, the Company had \$620,000, aggregate principal amount, of senior unsecured fixed and floating rate notes (the Senior Unsecured Notes) outstanding.

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

| Series | Principal Outstanding, February 28, 2011 | Estimated Fair Value, February 28, 2011 | Fixed/Floating Interest Rate | Maturity |
|--------|---|---|---------------------------------|----------|
| G | \$ 75,000 | \$ 76,400 | 5.645% | 6/19/11 |
| I | 60,000 | 63,200 | 5.847% | 6/19/12 |
| K | 125,000 | 135,100 | 5.991% | 6/19/13 |
| M | 60,000 | 62,900 | 4.560% | 11/4/14 |
| N | 50,000 | 50,500 | 3-month LIBOR + 185 bps | 11/4/14 |
| O | 65,000 | 67,200 | 4.210% | 5/7/15 |
| P | 45,000 | 45,200 | 3-month LIBOR + 160 bps | 5/7/15 |
| Q | 15,000 | 14,700 | 3.230% | 11/9/15 |
| R | 25,000 | 24,000 | 3.730% | 11/9/17 |
| S | 60,000 | 57,200 | 4.400% | 11/9/20 |
| T | 40,000 | 38,000 | 4.500% | 11/9/22 |
| | \$ 620,000 | \$ 634,400 | | |

Holders of the fixed rate Senior Unsecured Notes (Series G, Series I, Series K, Series M, Series O, Series Q, Series R, Series S, and Series T) 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 N and Series P) are entitled to receive cash interest payments quarterly (on March 19, June 19, September 19 and December 19) at the floating rate equal to 3-month LIBOR plus 1.85% and 3-month LIBOR plus 1.60%, respectively. During the period, the average principal balance outstanding was \$620,000 with a weighted average interest rate of 4.60%.

The Senior Unsecured Notes were issued in private placement offerings to institutional investors and are not listed on any exchange or automated quotation system. The Senior Unsecured Notes contain various covenants related to other indebtedness, liens and limits on the Company's overall leverage. 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 Unsecured Notes would be less than 300%.

The Senior Unsecured Notes are redeemable in certain circumstances at the option of the Company. The Senior Unsecured 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 Unsecured 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.

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At February 28, 2011, the Company was in compliance with all covenants under the Senior Unsecured Notes agreements.

12. Preferred Stock

At February 28, 2011, the Company had 6,400,000 shares of mandatory redeemable preferred stock outstanding, with a liquidation value of \$160,000.

The table below sets forth the key terms of each series of the mandatory redeemable preferred stock.

| Series | Shares⁽¹⁾ | Liquidation Value | Estimated Fair Value, February 28, 2011 | Rate | Mandatory Redemption Date |
|---------------|-----------------------------|--------------------------|--|-------------|----------------------------------|
| A | 4,400,000 | \$ 110,000 | \$ 114,100 | 5.57% | 5/7/17 |
| B | 320,000 | 8,000 | 7,800 | 4.53% | 11/9/17 |
| C | 1,680,000 | 42,000 | 40,600 | 5.20% | 11/9/20 |
| | 6,400,000 | \$ 160,000 | \$ 162,500 | | |

(1) Each share has a \$25 liquidation value.

Holders of the mandatory redeemable preferred stock are entitled to receive cumulative cash distribution payments on the first business day following each quarterly period (February 28, May 31, August 31 and November 30). If the rating provided by Fitch Ratings falls below A (or the equivalent rating of another nationally recognized agency), the annual distribution rate on the mandatory redeemable preferred stock will increase between 0.5% and 4.0%, depending on the rating. The annual distribution rate will increase by 4.0% if no ratings are maintained, and the distribution rate will increase by 5.0% if the Company fails to make quarterly distribution or certain other payments.

The mandatory redeemable preferred stock rank senior to all of the Company's outstanding common shares and on parity with any other preferred stock. The mandatory redeemable preferred stock is redeemable in certain circumstances at the option of the Company and are also subject to a mandatory redemption if the Company fails to meet a total leverage (debt and preferred stock) asset coverage ratio of 225% or fails to maintain its basic maintenance amount as stated in the Company's rating agency guidelines.

Under the terms of the mandatory redeemable preferred stock, the Company may not declare dividends or pay 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 total leverage would be less than 225%.

The holders of the mandatory redeemable preferred stock have one vote per share and will vote together with the holders of common stock as a single class except on matters affecting only the holders of mandatory redeemable preferred stock or the holders of common stock. The holders of the mandatory redeemable preferred stock, voting separately as a single class, have the right to elect at least two directors of the Company.

At February 28, 2011, the Company was in compliance with the asset coverage and basic maintenance requirements of its mandatory redeemable preferred stock.

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KAYNE ANDERSON MLP INVESTMENT COMPANY
NOTES TO FINANCIAL STATEMENTS
(amounts in 000 s, except option contracts, share and per share amounts)
(UNAUDITED)

13. Common Stock

The Company has 193,590,000 shares of common stock authorized and 68,713,481 shares outstanding at February 28, 2011. As of that date, KACALP owned 4,000 shares. Transactions in common shares for the three months ended February 28, 2011 were as follows:

| | |
|---|------------|
| Shares outstanding at November 30, 2010 | 68,471,401 |
| Shares issued through reinvestment of distributions | 242,080 |
| Shares outstanding at February 28, 2011 | 68,713,481 |

14. Subsequent Events

On March 22, 2011, the Company declared its quarterly distribution of \$0.49 per common share for the period December 1, 2010 through February 28, 2011 for a total quarterly distribution payment of \$33,670. The distribution was paid on April 15, 2011 to stockholders of record on April 5, 2011. Of this total, pursuant to the Company's dividend reinvestment plan, \$6,069 was reinvested into the Company through the issuance of 213,467 shares of common stock.

On April 8, 2011, the Company closed its public offering of 5,700,000 shares of common stock at a price of \$30.58 per share. Total net proceeds from the offering were \$167,352 and were used by the Company to make additional portfolio investments that are consistent with the Company's investment objective, and for general corporate purposes.

On April 27, 2011, the Company reached a conditional agreement with institutional investors relating to a private placement of \$225,000 of Senior Notes. Net proceeds from such offering will be used to repay borrowings under our revolving credit facility, to refinance the Series G Senior Notes that mature in June 2011 (\$75,000 principal amount), to make new portfolio investments and for general corporate purposes. Closing of the Senior Notes is scheduled for late May and is subject to investor due diligence, legal documentation and other standard closing conditions.

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

| Series | Amount | Rate | Term |
|--------------|------------|-----------------|---------|
| Senior Notes | | | |
| | | 3-month LIBOR + | |
| Series U | \$ 60,000 | 145 bps | 5 years |
| Series V | 65,000 | 3.71% | 5 years |
| Series W | 100,000 | 4.38% | 7 years |
| Total | \$ 225,000 | | |

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Directors and Corporate Officers

Kevin S. McCarthy

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

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

Chief Compliance Officer and Secretary

J.C. Frey

Executive Vice President, Assistant

Secretary and Assistant Treasurer

James C. Baker

Executive Vice President

Investment Adviser

KA Fund Advisors, LLC.

717 Texas Avenue, Suite 3100

Houston, TX 77002

Administrator

Ultimus Fund Solutions, LLC

350 Jericho Turnpike, Suite 206

Jericho, NY 11753

1800 Avenue of the Stars, Second Floor

Los Angeles, CA 90067

Stock Transfer Agent and Registrar

American Stock Transfer & Trust Company

59 Maiden Lane

New York, NY 10038

Custodian

JPMorgan Chase Bank, N.A.

14201 North Dallas Parkway, Second Floor

Dallas, TX 75254

Independent Registered Public Accounting Firm

PricewaterhouseCoopers LLP

350 South Grand Avenue

Los Angeles, CA 90071

Legal Counsel

Paul, Hastings, Janofsky & Walker LLP

55 Second Street, 24th Floor

San Francisco, CA 94105

Please visit us on the web at <http://www.kaynefunds.com> or call us toll-free at 1-877-657-3863.

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