Kayne Anderson MLP Investment CO
Form N-CSRS
July 28, 2017

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM N-CSR

CERTIFIED SHAREHOLDER REPORT OF REGISTERED

MANAGEMENT INVESTMENT COMPANIES

Investment Company Act file number 811-21593

Kayne Anderson MLP Investment Company

(Exact name of registrant as specified in charter)

811 Main Street, 14th Floor, Houston, Texas 77002
(Address of principal executive offices) (Zip code)

David Shladovsky, Esq.

KA Fund Advisors, LLC, 811 Main Street, 14th Floor, Houston, Texas 77002

(Name and address of agent for service)

Registrant s telephone number, including area code: (713) 493-2020

Date of fiscal year end: November 30, 2017

Date of reporting period: May 31, 2017

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

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

Item 1. Reports to Stockholders.

The report of Kayne Anderson MLP Investment Company (the Registrant) to stockholders for the semi-annual period ended May 31, 2017 is attached below.

MLP Investment Company

KYN Semi-Annual Report

May 31, 2017

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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 and similar expressions identify forward-looking statements, which generally are not hist 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 (MLP) 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.

KAYNE ANDERSON MLP INVESTMENT COMPANY

MANAGEMENT DISCUSSION

(UNAUDITED)

Company Overview

Kayne Anderson MLP Investment Company is a non-diversified, closed-end fund that commenced operations 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 May 31, 2017, we had total assets of $3.9 billion, net assets applicable to our common stockholders of $2.1 billion (net asset value of $18.42 per share), and 114.3 million shares of common stock outstanding.

Our investments are principally in equity securities issued by MLPs, but we also may invest in debt securities of MLPs and equity/debt securities of other Midstream Energy Companies. As of May 31, 2017, we held $3.8 billion in equity investments and no debt investments.

Results of Operations For the Three Months Ended May 31, 2017

Investment Income. Investment income totaled $7.8 million for the quarter. We received $69.0 million of dividends and distributions, of which $58.6 million was treated as return of capital and $2.6 million was treated as distributions in excess of cost basis. We also received $0.8 million of paid-in-kind dividends during the quarter, which are not included in investment income, but are reflected as an unrealized gain.

Operating Expenses. Operating expenses totaled $25.5 million, including $13.9 million of investment management fees, $7.6 million of interest expense, $3.1 million of preferred stock distributions and $0.9 million of other operating expenses. Interest expense includes $0.4 million of non-cash amortization of debt issuance costs. Preferred stock distributions include $0.2 million of non-cash amortization.

Net Investment Loss. Our net investment loss totaled $12.4 million and included a current tax benefit of $0.1 million and a deferred tax benefit of $5.2 million.

Net Realized Gains. We had net realized gains from our investments of $74.2 million, consisting of realized gains from long term investments of $115.9 million, $0.2 million of realized gains from option activity, a current tax expense of $0.1 million and a deferred tax expense of $41.8 million.

Net Change in Unrealized Gains. We had a net decrease in our unrealized gains of $278.1 million. The net change consisted of a $438.9 million decrease in our unrealized gains on investments, $0.1 million of unrealized gains from option activity and a deferred tax benefit of $160.7 million.

Net Decrease in Net Assets Resulting from Operations. We had a decrease in net assets resulting from operations of $216.3 million. This decrease was comprised of a net investment loss of $12.4 million, net realized gains of $74.2 million and a net decrease in unrealized gains of $278.1 million, as noted above.

Distributions to Common Stockholders

We pay quarterly distributions to our common stockholders, funded generally 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.

KAYNE ANDERSON MLP INVESTMENT COMPANY

MANAGEMENT DISCUSSION

(UNAUDITED)

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 investments) and (d) net premiums received from the sale of covered calls.

Operating expenses include (a) investment management fees paid to our investment adviser (KAFA), (b) other expenses (mostly comprised of fees paid to other service providers), (c) interest expense and preferred stock distributions and (d) current and 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 May 31, 2017
Distributions and Other Income from Investments	
Dividends and Distributions[1]	$ 69.0
Paid-In-Kind Dividends[1]	0.8
Net Premiums Received from Call Options Written	0.5
Total Distributions and Other Income from Investments	70.3
Expenses	
Net Investment Management Fee	(13.9)
Other Expenses	(0.9)
Interest Expense	(7.4)
Preferred Stock Distributions	(2.9)
Income Tax Benefit, net	5.3
Net Distributable Income (NDI)	**$ 50.5**
Weighted Shares Outstanding	114.1
NDI per Weighted Share Outstanding	**$ 0.443**
Adjusted NDI per Weighted Share Outstanding[2]	**$ 0.459**
Distributions paid per Common Share[3]	**$ 0.450**

(1) See Note 2 Significant Accounting Policies to the Financial Statements for additional information regarding paid-in-kind and non-cash dividends and distributions.

(2) Adjusted NDI includes $1.9 million of consideration received in the merger of MarkWest Energy Partners, L.P. and MPLX LP. Because the acquiring entity has deemed part of the merger consideration to be compensation to help offset the lower quarterly distribution that

unitholders of the acquired entity would receive after closing, we believe it to be appropriate to include this amount in Adjusted NDI. This merger consideration is not included in investment income for GAAP purposes, but rather is treated as additional consideration when calculating the realized or unrealized gain (loss) that results from the merger transaction.

(3) The distribution of $0.45 per share for the second quarter of fiscal 2017 was paid on July 14, 2017.

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. Because our quarterly distributions are funded primarily by NDI generated from our portfolio investments, the Board of Directors, in determining our quarterly distribution to common stockholders, gives a significant amount of consideration to the NDI and Adjusted NDI generated in the current quarter, as well as the NDI that our portfolio is expected to generate over the next twelve months. The Board of Directors also considers other factors, including but not limited to, realized and unrealized gains generated by the portfolio.

KAYNE ANDERSON MLP INVESTMENT COMPANY

MANAGEMENT DISCUSSION

(UNAUDITED)

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.

GAAP recognizes distributions received from MLPs that exceed the cost basis of our securities to be realized gains and are therefore excluded from investment income, whereas the NDI calculation includes these distributions.

NDI includes the value of paid-in-kind dividends and distributions, 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.

We may hold debt securities from time to time. Certain of our investments in debt securities may be 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 call premium that we received, thereby generating a profit. The premium we receive from selling call options, less (i) the premium that we pay to repurchase such call option contracts and (ii) the amount by which the market price of an underlying security is above the strike price at the time a new call option is written (if any), is included in NDI. For GAAP purposes, premiums received from call option contracts sold are 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 or write-offs of capitalized debt issuance costs, premiums on newly issued debt 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.

NDI also includes recurring payments (or receipts) on interest rate swap contracts or the amortization of termination payments on interest rate swap contracts entered into in anticipation of an offering of unsecured notes (Notes) or mandatory redeemable preferred

stock (MRP Shares). The termination payments on interest rate swap contracts are amortized over the term of the Notes or MRP Shares issued. For GAAP purposes, these amounts are included in the realized gains/losses section of the Statement of Operations.

KAYNE ANDERSON MLP INVESTMENT COMPANY

MANAGEMENT DISCUSSION

(UNAUDITED)

Liquidity and Capital Resources

At May 31, 2017, we had total leverage outstanding of $1,111 million, which represented 29% of total assets. Our current policy is to utilize leverage in an amount that represents approximately 25%-30% of our total assets. At quarter end, total leverage was comprised of $747 million of Notes, $72 million of borrowings outstanding under our unsecured term loan (the Term Loan) and $292 million of MRP Shares. At May 31, 2017, we did not have any borrowings outstanding under our unsecured revolving credit facility (the Credit Facility), and we had $1 million of cash and cash equivalents. As of July 21, 2017, we had no borrowings outstanding under our Credit Facility, $40 million outstanding under our Term Loan, and we had $1 million of cash and cash equivalents.

Our Credit Facility has a two-year term maturing on February 28, 2018 and a total commitment amount of $150 million. The interest rate on outstanding loan balances may vary between LIBOR plus 1.60% and LIBOR plus 2.25%, depending on our asset coverage ratios. We pay a fee of 0.30% per annum on any unused amounts of the Credit Facility.

Our Term Loan has a total commitment of $150 million and matures on February 18, 2019. Borrowings under the Term Loan bear interest at a rate of LIBOR plus 1.30%. Amounts borrowed under the Term Loan may be repaid and subsequently borrowed. We pay a fee of 0.25% per annum on any unused amounts of the Term Loan.

At May 31, 2017, we had $747 million of Notes outstanding that mature between 2018 and 2025 and we had $292 million of MRP Shares outstanding that are subject to mandatory redemption between 2020 and 2022. On April 24, 2017, we redeemed all $20 million of our Series Y Notes at par value, which were scheduled to mature in May 2017. On May 15, 2017, we redeemed all $8 million of our Series B MRP Shares at liquidation value, which were scheduled for redemption in November 2017.

At May 31, 2017, our asset coverage ratios under the Investment Company Act of 1940, as amended (the 1940 Act), were 393% for debt and 289% for total leverage (debt plus preferred stock). Our target asset coverage ratio with respect to our debt is 385%. At times we may be above or below this target depending on market conditions as well as certain other factors, including our target total leverage asset coverage ratio of 290% and the basic maintenance amount as stated in our rating agency guidelines.

As of May 31, 2017, our total leverage consisted 94% of fixed rate obligations and 6% of floating rate obligations. At such date, the weighted average interest/dividend rate on our total leverage was 3.56%.

KAYNE ANDERSON MLP INVESTMENT COMPANY

PORTFOLIO SUMMARY

(UNAUDITED)

Portfolio of Long-Term Investments by Category

May 31, 2017 **November 30, 2016**

Top 10 Holdings by Issuer

Holding	Category	Percent of Long-Term Investments as of May 31, 2017	Percent of Long-Term Investments as of November 30, 2016
1. Enterprise Products Partners L.P.	Midstream MLP	13.9%	12.5%
2. Energy Transfer Partners, L.P.[(1)]	Midstream MLP	11.3	9.7
3. Williams Partners L.P.	Midstream MLP	8.9	10.3
4. ONEOK Partners, L.P.[(2)]	Midstream MLP	7.0	7.5
5. MPLX LP	Midstream MLP	6.3	6.1
6. Plains All American Pipeline, L.P.	Midstream MLP	6.2	7.6
7. Western Gas Partners, LP	Midstream MLP	5.6	5.7
8. Buckeye Partners, L.P.	Midstream MLP	4.8	4.6
9. DCP Midstream Partners, LP	Midstream MLP	4.5	5.4
10. Magellan Midstream Partners, L.P.	Midstream MLP	4.0	4.1

(1) On April 28, 2017, Energy Transfer Partners, L.P. (ETP) and Sunoco Logistics Partners L.P. (SXL) completed a unit-for-unit merger. As of November 30, 2016, our combined investment in ETP and SXL represented 12.1% of long-term investments.

(2) On June 30, 2017, ONEOK, Inc. (OKE) and ONEOK Partners, L.P. completed the previously announced stock-for-unit merger. As of May 31, 2017 and November 30, 2016, the Company did not own any OKE shares.

KAYNE ANDERSON MLP INVESTMENT COMPANY

SCHEDULE OF INVESTMENTS

MAY 31, 2017

(amounts in 000 s, except number of option contracts)

(UNAUDITED)

Description	No. of Shares/Units	Value
Long-Term Investments 182.5%		
Equity Investments[1] 182.5%		
Midstream MLP[2] 170.6%		
Antero Midstream Partners LP	1,058	$ 36,663
Arc Logistics Partners LP	1,755	24,867
Buckeye Partners, L.P.	2,871	183,742
Cheniere Energy Partners, L.P.	494	15,878
Crestwood Equity Partners LP	1,363	31,210
DCP Midstream, LP	5,110	172,623
Dominion Midstream Partners, LP	267	7,636
Dominion Midstream Partners, LP Convertible Preferred Units[3][4][5]	525	15,918
Enbridge Energy Management, L.L.C.[6]	2,353	37,832
Enbridge Energy Partners, L.P.	2,622	43,427
Energy Transfer Partners, L.P.	19,879	432,577
EnLink Midstream Partners, LP	4,120	69,915
Enterprise Products Partners L.P.[7]	19,940	534,594
EQT Midstream Partners, LP	704	51,907
Global Partners LP	760	14,258
Hess Midstream Partners LP[8]	197	4,569
Magellan Midstream Partners, L.P.	2,104	152,696
MPLX LP	4,753	157,094
MPLX LP Convertible Preferred Units[3][4][9]	2,255	83,991
NGL Energy Partners LP	1,104	15,016
Noble Midstream Partners LP	284	13,047
NuStar Energy L.P.	651	29,663
ONEOK Partners, L.P.[10][11]	5,466	267,354
PBF Logistics LP	1,112	21,799
Phillips 66 Partners LP	533	26,416
Plains All American Pipeline, L.P.[11]	8,962	237,307
Plains GP Holdings, L.P.[11]	140	3,734
Plains GP Holdings, L.P. Plains AAP, L.P.[4][11][12]	1,278	34,072
Rice Midstream Partners LP	581	14,250
Shell Midstream Partners, L.P.	977	29,138
Spectra Energy Partners, LP	1,357	58,558
Sprague Resources LP	713	18,140
Summit Midstream Partners, LP	1,906	44,026
Tallgrass Energy Partners, LP	1,469	72,843
TC PipeLines, LP	706	39,704
Tesoro Logistics LP	696	36,863
Western Gas Partners, LP	3,841	214,066
Williams Partners L.P.[13]	8,757	343,017
		3,590,410

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

SCHEDULE OF INVESTMENTS

MAY 31, 2017

(amounts in 000 s, except number of option contracts)

(UNAUDITED)

Description	No. of Shares/Units	Value
Midstream Company 8.1%		
Kinder Morgan, Inc.	1,105	$ 20,720
Tallgrass Energy GP, LP	231	5,961
Targa Resources Corp.	3,137	144,067
		170,748
Shipping MLP 3.0%		
Capital Product Partners L.P. Class B Units[3][4][14]	3,030	22,182
Dynagas LNG Partners LP	509	7,074
GasLog Partners LP	173	3,784
Golar LNG Partners LP	1,344	26,560
Höegh LNG Partners LP	233	4,447
		64,047
General Partner MLP 0.8%		
Energy Transfer Equity, L.P.	927	15,801
Other		
Clearwater Trust [3][4][11][15]	N/A	30
Total Long-Term Investments 182.5% (Cost $2,868,615)		3,841,036

	Strike Price	Expiration Date	No. of Contracts	Value
Liabilities				
Call Option Contracts Written[16]				
Midstream MLP				
Williams Partners L.P. (Premiums Received $240)	$ 40.00	6/16/17	2,700	(108)
Debt				(819,000)
Mandatory Redeemable Preferred Stock at Liquidation Value				(292,000)
Deferred Income Tax Liability				(613,743)
Income Tax Receivable				7,891
Other Liabilities in Excess of Other Assets				(18,940)
Net Assets Applicable to Common Stockholders				$ 2,105,136

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

(2) Includes limited liability companies.

(3) Fair valued security. See Notes 2 and 3 in Notes to Financial Statements.

(4) The Company s ability to sell this security is subject to certain legal or contractual restrictions. As of May 31, 2017, the aggregate value of restricted securities held by the Company was $156,193 (4.1% of total assets). See Note 7 Restricted Securities.

(5) On December 1, 2016, the Company purchased, in a private placement, Series A Convertible Preferred Units (DM Convertible Preferred Units) from Dominion Midstream Partners, LP (DM). The DM Convertible Preferred Units are senior to the common units in terms of liquidation preference and priority of distributions and pay a quarterly distribution of $0.3135 per unit for the first two years and thereafter will pay the higher of (a) $0.3135 per unit or (b) the distribution that the DM Convertible Preferred Units would receive on an as converted basis. For the first two years, the distribution may be paid, at DM s

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

SCHEDULE OF INVESTMENTS

MAY 31, 2017

(amounts in 000 s, except number of option contracts)

(UNAUDITED)

option, in cash or in units. After two years, the distribution will be paid in cash. The DM Convertible Preferred Units are subject to a lock-up agreement through December 1, 2017. Holders of the DM Convertible Preferred Units may convert on a one-for-one basis to DM common units any time after December 1, 2018.

(6) Dividends are paid-in-kind.

(7) In lieu of cash distributions, the Company has elected to receive distributions in additional units through the partnership s dividend reinvestment program.

(8) Security is not currently paying cash distributions but is expected to pay cash distributions within the next 12 months.

(9) On May 13, 2016, the Company purchased, in a private placement, Series A Convertible Preferred Units (MPLX Convertible Preferred Units) from MPLX LP (MPLX). The MPLX Convertible Preferred Units are senior to the common units in terms of liquidation preference and priority of distributions and pay a quarterly distribution of $0.528125 per unit for the first two years and thereafter will pay the higher of (a) $0.528125 per unit or (b) the distribution that the MPLX Convertible Preferred Units would receive on an as converted basis. Holders of the MPLX Convertible Preferred Units may convert on a one-for-one basis to MPLX common units any time after May 13, 2019.

(10) On June 30, 2017, ONEOK, Inc. (OKE) and ONEOK Partners, L.P. (OKS) completed the previously announced stock-for-unit merger.

(11) The Company believes that it is an affiliate of Clearwater Trust, Plains AAP, L.P. (PAGP-AAP), Plains All American Pipeline, L.P. (PAA) and Plains GP Holdings, L.P. (PAGP). The Company does not believe that it is an affiliate of OKE or OKS. See Note 5 Agreements and Affiliations.

(12) The Company s ownership of PAGP-AAP is exchangeable on a one-for-one basis into either PAGP shares or PAA units at the Company s option. The Company values its PAGP-AAP investment on an as exchanged basis based on the higher public market value of either PAGP or PAA. As of May 31, 2017, the Company s PAGP-AAP investment is valued at PAGP s closing price. See Notes 3 and 7 in Notes to Financial Statements.

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

(14) Class B Units are convertible on a one-for-one basis into common units of Capital Product Partners L.P. (CPLP) and are senior to the common units in terms of liquidation preference and priority of distributions (liquidation preference of $9.00 per unit). The Class B Units pay quarterly cash distributions and are convertible at any time at the option of the holder. The Class B Units paid a distribution of

$0.21375 per unit for the second quarter.

(15) The Company owns an interest in the Creditors Trust of Miller Bros. Coal, LLC (Clearwater Trust) consisting of a coal royalty interest and certain other assets. See Notes 5 and 7 in Notes to Financial Statements.

(16) Security is non-income producing.

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

STATEMENT OF ASSETS AND LIABILITIES

MAY 31, 2017

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

(UNAUDITED)

ASSETS	
Investments at fair value:	
Non-affiliated (Cost $2,729,306)	$ 3,565,893
Affiliated (Cost $139,309)	275,143
Total investments (Cost $2,868,615)	3,841,036
Cash	1,229
Deposits with brokers	248
Receivable for securities sold	54
Dividends and distributions receivable	435
Income tax receivable	7,891
Deferred credit facility and term loan offering costs and other assets	1,872
Total Assets	3,852,765
LIABILITIES	
Investment management fee payable	13,921
Accrued directors fees and expenses	128
Call option contracts written (Premiums received $240)	108
Accrued expenses and other liabilities	14,534
Deferred income tax liability	613,743
Term loan	72,000
Notes	747,000
Unamortized notes issuance costs	(3,168)
Mandatory redeemable preferred stock, $25.00 liquidation value per share (11,680,000 shares issued and outstanding)	292,000
Unamortized mandatory redeemable preferred stock issuance costs	(2,637)
Total Liabilities	1,747,629
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS	$ 2,105,136
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS CONSIST OF	
Common stock, $0.001 par value (114,279,700 shares issued and outstanding, 188,320,000 shares authorized)	$ 114
Paid-in capital	2,135,227
Accumulated net investment loss, net of income taxes, less dividends	(1,545,605)
Accumulated realized gains, net of income taxes	902,080
Net unrealized gains, net of income taxes	613,320
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS	$ 2,105,136
	$ 18.42

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

STATEMENT OF OPERATIONS

(amounts in 000 s)

(UNAUDITED)

	For the Three Months Ended May 31, 2017	For the Six Months Ended May 31, 2017
INVESTMENT INCOME		
Income		
Dividends and distributions:		
Non-affiliated investments	$ 63,306	$ 132,970
Affiliated investments	5,708	11,363
Total dividends and distributions	69,014	144,333
Return of capital	(58,604)	(122,449)
Distributions in excess of cost basis	(2,615)	(4,901)
Total Investment Income	7,795	16,983
Expenses		
Investment management fees	13,922	27,627
Administration fees	306	611
Professional fees	146	268
Directors fees and expenses	126	256
Reports to stockholders	73	173
Custodian fees	52	106
Insurance	48	95
Other expenses	114	207
Total expenses before fee waiver, interest expense, preferred distributions and taxes	14,787	29,343
Interest expense including amortization of offering costs	7,623	15,183
Distributions on mandatory redeemable preferred stock including amortization of offering costs	3,083	6,168
Total expenses before taxes	25,493	50,694
Net Investment Loss Before Taxes	(17,698)	(33,711)
Current income tax benefit (expense)	49	(52)
Deferred income tax benefit	5,265	10,218
Net Investment Loss	(12,384)	(23,545)
REALIZED AND UNREALIZED GAINS (LOSSES)		
Net Realized Gains (Losses)		
Investments non-affiliated	115,852	161,556
Investments affiliated		(127)
Options	237	237
Current income tax (expense) benefit	(49)	300
Deferred income tax (expense)	(41,874)	(58,948)
Net Realized Gains	74,166	103,018
Net Change in Unrealized Gains (Losses)		

Investments non-affiliated	(384,770)	(22,832)
Investments affiliated	(54,084)	(59,702)
Options	132	289
Deferred income tax benefit	160,650	29,836
Net Change in Unrealized Gains	(278,072)	(52,409)
Net Realized and Unrealized Gains (Losses)	(203,906)	50,609
NET INCREASE (DECREASE) IN NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS RESULTING FROM OPERATIONS	($ 216,290)	$ 27,064

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

STATEMENT OF CHANGES IN NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS

(amounts in 000 s, except share amounts)

	For the Six Months Ended May 31, 2017 (Unaudited)	For the Fiscal Year Ended November 30, 2016
OPERATIONS		
Net investment loss, net of tax[1]	$ (23,545)	$ (69,048)
Net realized gains, net of tax	103,018	111,707
Net change in unrealized gains (losses), net of tax	(52,409)	210,921
Net Increase in Net Assets Resulting from Operations	27,064	253,580
DIVIDENDS AND DISTRIBUTIONS TO COMMON STOCKHOLDERS[1]		
Dividends	(113,834)[2]	[3]
Distributions return of capital	[2]	(248,172)[3]
Dividends and Distributions to Common Stockholders	(113,834)	(248,172)
CAPITAL STOCK TRANSACTIONS		
Issuance of 665,037 shares of common stock		10,035 [4]
Issuance of 592,191 and 1,497,460 shares of common stock from reinvestment of dividends and distributions, respectively	11,125	23,736
Net Increase in Net Assets Applicable to Common Stockholders from Capital Stock Transactions	11,125	33,771
Total Increase (Decrease) in Net Assets Applicable to Common Stockholders	(75,645)	39,179
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS		
Beginning of period	2,180,781	2,141,602
End of period	$ 2,105,136	$ 2,180,781

(1) Distributions on the Company s mandatory redeemable preferred stock (MRP Shares) are treated as an operating expense under GAAP and are included in the calculation of net investment loss. See Note 2 Significant Accounting Policies. Distributions in the amount of $5,783 paid to holders of MRP Shares during the six months ended May 31, 2017 are estimated to be characterized as dividends (eligible to be treated as qualified dividend income). This estimate is based solely on the Company s operating results during the period and does not reflect the expected results during the remainder of the fiscal year. The actual characterization of the MRP Shares distributions made during the period will not be determinable until after the end of the fiscal year when the Company can determine its earnings and profits. Therefore, the characterization may differ from the preliminary estimates. Distributions in the amount of $17,811 paid to holders of MRP Shares for the fiscal year ended November 30, 2016 were characterized as distributions (return of capital). This characterization is based on the Company s earnings and profits.

(2) The characterization of the distributions paid to common stockholders for the six months ended May 31, 2017 as either dividends (eligible to be treated as qualified dividend income) or distributions (return of capital) is based solely on the Company s operating results during the period and does not reflect the expected results during the remainder of the fiscal year. The actual characterization of the common stock distributions made during the period will not be determinable until after the end of the fiscal year when the Company can determine its

earnings and profits. Therefore, the characterization may differ from the preliminary estimates.

(3) Distributions paid to common stockholders for the fiscal year ended November 30, 2016 were characterized as distributions (return of capital). This characterization is based on the Company s earnings and profits.

(4) On December 17, 2015, the Company s investment advisor, KA Fund Advisors, LLC, purchased $10,035 of newly issued shares funded in part with the after-tax management fees received during the fourth quarter of fiscal 2015.

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

STATEMENT OF CASH FLOWS

FOR THE SIX MONTHS ENDED MAY 31, 2017

(amounts in 000 s)

(UNAUDITED)

CASH FLOWS FROM OPERATING ACTIVITIES	
Net increase in net assets resulting from operations	$ 27,064
Adjustments to reconcile net increase in net assets resulting from operations to net cash provided by operating activities:	
Return of capital distributions	122,449
Distributions in excess of cost basis	4,901
Net realized gains	(161,666)
Net change in unrealized gains	82,245
Purchase of long-term investments	(307,045)
Proceeds from sale of long-term investments	289,345
Decrease in deposits with brokers	3
Decrease in receivable for securities sold	22,568
Decrease in dividends and distributions receivable	475
Decrease in income tax receivable	10,579
Amortization of deferred debt offering costs	804
Amortization of mandatory redeemable preferred stock offering costs	385
Increase in other assets	(217)
Decrease in payable for securities purchased	(9,562)
Increase in investment management fee payable	635
Increase in accrued directors fees and expenses	2
Increase in premiums received on call option contracts written	116
Decrease in accrued expenses and other liabilities	(139)
Increase in deferred income tax liability	18,901
Net Cash Provided by Operating Activities	101,843
CASH FLOWS FROM FINANCING ACTIVITIES	
Increase in borrowings under term loan	29,000
Redemption of notes	(20,000)
Redemption of mandatory redeemable preferred stock	(8,000)
Cash distributions paid to common stockholders	(102,709)
Net Cash Used in Financing Activities	(101,709)
NET INCREASE IN CASH	134
CASH BEGINNING OF PERIOD	1,095
CASH END OF PERIOD	$ 1,229

Supplemental disclosure of cash flow information:

Non-cash financing activities not included herein consisted of reinvestment of distributions pursuant to the Company s dividend reinvestment plan of $11,125.

During the six months ended May 31, 2017, interest paid related to debt obligations was $14,665 and income tax refunds received were $10,827.

The Company received $17,664 of paid-in-kind and non-cash dividends and distributions during the six months ended May 31, 2017. See Note 2 Significant Accounting Policies.

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

FINANCIAL HIGHLIGHTS

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

	For the Six Months Ended May 31, 2017 (Unaudited)	For the Fiscal Year Ended November 30, 2016	2015	2014
Per Share of Common Stock[1]				
Net asset value, beginning of period	$ 19.18	$ 19.20	$ 36.71	$ 34.30
Net investment income (loss)[2]	(0.21)	(0.61)	(0.53)	(0.76)
Net realized and unrealized gain (loss)	0.45	2.80	(14.39)	5.64
Total income (loss) from operations	0.24	2.19	(14.92)	4.88
Dividends and distributions auction rate preferred[2][3]				
Common dividends[3]	(1.00)		(2.15)	(2.28)
Common distributions return of capital[3]		(2.20)	(0.48)	(0.25)
Total dividends and distributions common	(1.00)	(2.20)	(2.63)	(2.53)
Underwriting discounts and offering costs on the issuance of auction rate preferred stock				
Effect of issuance of common stock			0.03	0.06
Effect of shares issued in reinvestment of distributions		(0.01)	0.01	
Total capital stock transactions		(0.01)	0.04	0.06
Net asset value, end of period	$ 18.42	$ 19.18	$ 19.20	$ 36.71
Market value per share of common stock, end of period	$ 18.89	$ 19.72	$ 18.23	$ 38.14
Total investment return based on common stock market value[4]	1.0%[5]	24.1%	(47.7)%	9.9%
Total investment return based on net asset value[6]	1.2%[5]	14.6%	(42.8)%	14.8%
Supplemental Data and Ratios[7]				
Net assets applicable to common stockholders, end of period	$ 2,105,136	$ 2,180,781	$ 2,141,602	$ 4,026,822
Ratio of expenses to average net assets				
Management fees (net of fee waiver)	2.4%	2.5%	2.6%	2.4%
Other expenses	0.2	0.2	0.1	0.1
Subtotal	2.6	2.7	2.7	2.5
Interest expense and distributions on mandatory redeemable preferred stock[2]	1.9	2.8	2.4	1.8
Income tax expense[8]	0.8[5]	7.9		8.3
Total expenses	5.3%	13.4%	5.1%	12.6%
Ratio of net investment income (loss) to average net assets[2]	(2.1)%	(3.4)%	(1.8)%	(2.0)%
Net increase (decrease) in net assets to common stockholders resulting from operations to average net assets	1.2%[5]	12.5%	(51.7)%	13.2%
Portfolio turnover rate	7.1%[5]	14.5%	17.1%	17.6%
Average net assets	$ 2,264,563	$ 2,031,206	$ 3,195,445	$ 3,967,458

Notes outstanding, end of period[9]	$ 747,000	$ 767,000	$ 1,031,000	$ 1,435,000
Credit facility outstanding, end of period[9]	$	$	$	$
Term loan outstanding, end of period[9]	$ 72,000	$ 43,000	$	$ 51,000
Auction rate preferred stock, end of period[9]	$	$	$	$
Mandatory redeemable preferred stock, end of period[9]	$ 292,000	$ 300,000	$ 464,000	$ 524,000
Average shares of common stock outstanding	113,995,639	112,967,480	110,809,350	107,305,514
Asset coverage of total debt[10]	392.7%	406.3%	352.7%	406.2%
Asset coverage of total leverage (debt and preferred stock)[11]	289.5%	296.5%	243.3%	300.3%
Average amount of borrowings per share of common stock during the period[1]	$ 7.38	$ 7.06	$ 11.95	$ 13.23

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

FINANCIAL HIGHLIGHTS

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

	For the Fiscal Year Ended November 30,			
	2013	**2012**	**2011**	**2010**
Per Share of Common Stock[1]				
Net asset value, beginning of period	$ 28.51	$ 27.01	$ 26.67	$ 20.13
Net investment income (loss)[2]	(0.73)	(0.71)	(0.69)	(0.44)
Net realized and unrealized gain (loss)	8.72	4.27	2.91	8.72
Total income (loss) from operations	7.99	3.56	2.22	8.28
Dividends and distributions auction rate preferred[2][3]				
Common dividends[3]	(1.54)	(1.54)	(1.26)	(0.84)
Common distributions return of capital[3]	(0.75)	(0.55)	(0.72)	(1.08)
Total dividends and distributions common	(2.29)	(2.09)	(1.98)	(1.92)
Underwriting discounts and offering costs on the issuance of auction rate preferred stock				
Effect of issuance of common stock	0.09	0.02	0.09	0.16
Effect of shares issued in reinvestment of distributions		0.01	0.01	0.02
Total capital stock transactions	0.09	0.03	0.10	0.18
Net asset value, end of period	$ 34.30	$ 28.51	$ 27.01	$ 26.67
Market value per share of common stock, end of period	$ 37.23	$ 31.13	$ 28.03	$ 28.49
Total investment return based on common stock market value[4]	28.2%	19.3%	5.6%	26.0%
Total investment return based on net asset value[6]	29.0%	13.4%	8.7%	43.2%
Supplemental Data and Ratios[7]				
Net assets applicable to common stockholders, end of period	$ 3,443,916	$ 2,520,821	$ 2,029,603	$ 1,825,891
Ratio of expenses to average net assets				
Management fees (net of fee waiver)	2.4%	2.4%	2.4%	2.1%
Other expenses	0.1	0.2	0.2	0.2
Subtotal	2.5	2.6	2.6	2.3
Interest expense and distributions on mandatory redeemable preferred stock[2]	2.1	2.4	2.3	1.9
Income tax expense[8]	14.4	7.2	4.8	20.5
Total expenses	19.0%	12.2%	9.7%	24.7%
Ratio of net investment income (loss) to average net assets[2]	(2.3)%	(2.5)%	(2.5)%	(1.8)%
Net increase (decrease) in net assets to common stockholders resulting from operations to average net assets	24.3%	11.6%	7.7%	34.6%
Portfolio turnover rate	21.2%	20.4%	22.3%	18.7%
Average net assets	$ 3,027,563	$ 2,346,249	$ 1,971,469	$ 1,432,266
Notes outstanding, end of period[9]	$ 1,175,000	$ 890,000	$ 775,000	$ 620,000

Credit facility outstanding, end of period[9]	$ 69,000	$ 19,000	$	$
Term loan outstanding, end of period[9]	$	$	$	$
Auction rate preferred stock, end of period[9]	$	$	$	$
Mandatory redeemable preferred stock, end of period[9]	$ 449,000	$ 374,000	$ 260,000	$ 160,000
Average shares of common stock outstanding	94,658,194	82,809,687	72,661,162	60,762,952
Asset coverage of total debt[10]	412.9%	418.5%	395.4%	420.3%
Asset coverage of total leverage (debt and preferred stock)[11]	303.4%	296.5%	296.1%	334.1%
Average amount of borrowings per share of common stock during the period[1]	$ 11.70	$ 10.80	$ 10.09	$ 7.70

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

FINANCIAL HIGHLIGHTS

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

	For the Fiscal Year Ended November 30,		
	2009	**2008**	**2007**
Per Share of Common Stock[1]			
Net asset value, beginning of period	$ 14.74	$ 30.08	$ 28.99
Net investment income (loss)[2]	(0.33)	(0.73)	(0.73)
Net realized and unrealized gain (loss)	7.50	(12.56)	3.58
Total income (loss) from operations	7.17	(13.29)	2.85
Dividends and distributions auction rate preferred[2][3]	(0.01)	(0.10)	(0.10)
Common dividends[3]			(0.09)
Common distributions return of capital[3]	(1.94)	(1.99)	(1.84)
Total dividends and distributions common	(1.94)	(1.99)	(1.93)
Underwriting discounts and offering costs on the issuance of auction rate preferred stock			
Effect of issuance of common stock	0.12		0.26
Effect of shares issued in reinvestment of distributions	0.05	0.04	0.01
Total capital stock transactions	0.17	0.04	0.27
Net asset value, end of period	$ 20.13	$ 14.74	$ 30.08
Market value per share of common stock, end of period	$ 24.43	$ 13.37	$ 28.27
Total investment return based on common stock market value[4]	103.0%	(48.8)%	(4.4)%
Total investment return based on net asset value[6]	51.7%	(46.9)%	10.2%
Supplemental Data and Ratios[7]			
Net assets applicable to common stockholders, end of period	$ 1,038,277	$ 651,156	$ 1,300,030
Ratio of expenses to average net assets			
Management fees (net of fee waiver)	2.1%	2.2%	2.3%
Other expenses	0.4	0.3	0.2
Subtotal	2.5	2.5	2.5
Interest expense and distributions on mandatory redeemable preferred stock[2]	2.5	3.4	2.3
Income tax expense[8]	25.4		3.5
Total expenses	30.4%	5.9%	8.3%
Ratio of net investment income (loss) to average net assets[2]	(2.0)%	(2.8)%	(2.3)%
Net increase (decrease) in net assets to common stockholders resulting from operations to average net assets	43.2%	(51.2)%	7.3%
Portfolio turnover rate	28.9%	6.7%	10.6%
Average net assets	$ 774,999	$ 1,143,192	$ 1,302,425
Notes outstanding, end of period[9]	$ 370,000	$ 304,000	$ 505,000
Credit facility outstanding, end of period[9]	$	$	$ 97,000

Term loan outstanding, end of period[9]	$	$	$
Auction rate preferred stock, end of period[9]	$ 75,000	$ 75,000	$ 75,000
Mandatory redeemable preferred stock, end of period[9]	$	$	$
Average shares of common stock outstanding	46,894,632	43,671,666	41,134,949
Asset coverage of total debt[10]	400.9%	338.9%	328.4%
Asset coverage of total leverage (debt and preferred stock)[11]	333.3%	271.8%	292.0%
Average amount of borrowings per share of common stock during the period[1]	$ 6.79	$ 11.52	$ 12.14

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

FINANCIAL HIGHLIGHTS

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

(1) Based on average shares of common stock outstanding.

(2) Distributions on the Company s MRP Shares are treated as an operating expense under GAAP and are included in the calculation of net investment income (loss). See Note 2 Significant Accounting Policies.

(3) The characterization of the distributions paid for the six months ended May 31, 2017 is based solely on the Company s operating results during the period and does not reflect the expected results during the remainder of the fiscal year. 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 (eligible to be treated as qualified dividend income) or a distribution (return of capital) and is based on the Company s earnings and profits.

(4) Total investment return based on market value 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.

(5) Not annualized.

(6) Total investment return based on net asset value is calculated assuming a purchase of common stock at the net asset value on the first day and a sale at the net asset value 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) Unless otherwise noted, ratios are annualized.

(8) For the fiscal years ended November 30, 2015 and November 30, 2008, the Company reported an income tax benefit of $980,647 (30.7% of average net assets) and $339,991 (29.7% of average net assets), respectively, primarily related to unrealized losses on investments. The income tax expense is assumed to be 0% because the Company reported a net deferred income tax benefit during the year.

(9) Principal/liquidation value.

(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 Notes (principal value) or any other senior securities representing indebtedness and MRP Shares (liquidation value) divided by the aggregate amount of 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 Credit Facility and the Term Loan are considered senior securities 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 Notes (principal value), any other senior securities representing indebtedness and MRP Shares (liquidation value) divided by the aggregate amount of Notes, any other senior securities representing indebtedness and MRP Shares. 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 MRP Shares, 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 Credit Facility and the Term Loan are considered senior securities representing indebtedness.

See accompanying notes to financial statements.

KAYNE ANDERSON MLP INVESTMENT COMPANY

NOTES TO FINANCIAL STATEMENTS

(amounts in 000 s, except number of 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 total assets in energy-related partnerships and their affiliates (collectively, master limited partnerships or 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, 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

The following is a summary of the significant accounting policies that the Company uses to prepare its financial statements in accordance with accounting principles generally accepted in the United States of America (GAAP). The Company is an investment company and follows accounting and reporting guidance of the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 946 Financial Services Investment Companies.

A. *Use of Estimates* The preparation of financial statements in conformity with 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 income 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.

C. *Calculation of Net Asset Value* The Company determines its net asset value on a daily basis and reports its net asset value on its website. Net asset value is computed by dividing the value of the Company s assets (including accrued interest and distributions and current and deferred income tax assets), less all of its liabilities (including accrued expenses, distributions payable, current and deferred 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 or, if such prices are not available or in the judgment of KA Fund Advisors, LLC (KAFA) such prices are stale or do not represent fair value, by an independent broker. For debt securities that are considered bank loans, the fair market value is determined by using the mean of the bid and ask prices provided by the agent or syndicate bank or principal market maker. When price quotes for securities are not available, or such prices are stale or do not represent fair value in the judgment of KAFA, fair market value will be determined using the Company s valuation process for securities that are privately issued or otherwise restricted as to resale.

KAYNE ANDERSON MLP INVESTMENT COMPANY

NOTES TO FINANCIAL STATEMENTS

(amounts in 000 s, except number of 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 security for which (a) reliable market quotations are not available in the judgment of KAFA, or (b) the independent pricing service or independent broker does not provide prices or provides a price that in the judgment of KAFA is stale or does not represent fair value, shall each be valued 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 valued by senior professionals of KAFA who are responsible for the portfolio investments. The investments will be valued monthly with new investments valued at the time such investment was made.

Investment Team Valuation Documentation. Preliminary valuation conclusions will be determined by senior management of KAFA. Such valuations and supporting documentation are submitted to the Valuation Committee (a committee of the Company s Board of Directors) and the Board of Directors on a quarterly basis.

Valuation Committee. The Valuation Committee meets to consider the valuations submitted by KAFA at the end of each quarter. Between meetings of the Valuation Committee, a senior officer of KAFA is authorized to make valuation determinations. All valuation determinations of the Valuation Committee are subject to ratification by the Board of Directors at its next regular meeting.

Valuation Firm. Quarterly, a third-party valuation firm engaged by the Board of Directors reviews the valuation methodologies and calculations employed for these securities, unless the aggregate fair value of such security is less than 0.1% of total assets.

Board of Directors Determination. The Board of Directors meets quarterly to consider the valuations provided by KAFA and the Valuation Committee 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.

At May 31, 2017, the Company held 5.8% of its net assets applicable to common stockholders (3.2% of total assets) in securities valued at fair value pursuant to procedures adopted by the Board of Directors. The aggregate fair value of these securities at May 31, 2017 was $122,121. See Note 3 Fair Value and Note 7 Restricted Securities.

E. *Security Transactions* Security transactions are accounted for on the date these securities are purchased or sold (trade date). Realized gains and losses are calculated using the specific identification cost basis method for GAAP purposes. For tax purposes, the Company utilizes the average cost method to compute the adjusted tax cost basis of its MLP securities.

F. *Return of Capital Estimates* Distributions received from the Company s investments in MLPs and other securities 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. The Company estimates that 91% of distributions received from its MLP investments were return of capital distributions. This estimate is adjusted to actual in the subsequent fiscal year when tax reporting information related to the Company s MLP investments is received. Such estimates for MLPs and other investments are based on historical information available from each investment and other industry sources.

KAYNE ANDERSON MLP INVESTMENT COMPANY

NOTES TO FINANCIAL STATEMENTS

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

(UNAUDITED)

The return of capital portion of the distributions is a reduction to investment income that results in an equivalent reduction in the cost basis of the associated investments and increases net realized gains (losses) and net change in unrealized gains (losses). If the distributions received by the Company exceed its cost basis (*i.e*. its cost basis has been reduced to zero), the distributions are treated as realized gains.

The Company includes all distributions received on its Statement of Operations and reduces its investment income by (i) the estimated return of capital and (ii) the distributions in excess of cost basis, if any. For the six months ended May 31, 2017, the Company estimated $122,449 of return of capital and $4,901 of distributions that were in excess of cost basis. The distributions that were in excess of cost basis were treated as realized gains.

In accordance with GAAP, the return of capital cost basis reductions for the Company s MLP investments are limited to the total amount of the cash distributions received from such investments. For income tax purposes, the cost basis reductions for the Company s MLP investments typically exceed cash distributions received from such investments due to allocated losses from these investments. See Note 6 Income Taxes.

The following table sets forth the Company s estimated return of capital portion of the distributions received from its investments.

	For the Three Months Ended May 31, 2017	For the Six Months Ended May 31, 2017
Return of capital portion of dividends and distributions received	85%	85%
Return of capital attributable to net realized gains (losses)	$ 4,366	$ 4,972
Return of capital attributable to net change in unrealized gains (losses)	54,238	117,477
Total return of capital	$ 58,604	$ 122,449

G. *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.

Debt securities that the Company may hold will typically be 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 a premium are based on the effective interest method. The amount of these non-cash adjustments, if any, 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 may receive paid-in-kind and non-cash dividends and distributions in the form of additional units or shares from its investments. For paid-in-kind dividends, the additional units are not reflected in investment income during the period received, but are recorded as unrealized gains upon receipt. Non-cash distributions are reflected in investment income because the Company has the option to receive its distributions in cash or in additional units of the security. During the three and six months ended May 31, 2017, the Company received $808 and $2,064, respectively, of paid-in-kind dividends from its investment in Enbridge Energy Management, L.L.C. and $7,920 and $15,600, respectively, of non-cash distributions from its investments in Enterprise Products Partners L.P.

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H. *Distributions to Stockholders* Distributions to common stockholders are recorded on the ex-dividend date. Distributions to holders of MRP Shares are accrued on a daily basis as described in Note 12 Preferred Stock. As required by the Distinguishing Liabilities from Equity topic of the FASB Accounting Standards Codification (ASC 480), the Company includes the accrued distributions on its MRP Shares 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 MRP Shares are treated as dividends or distributions.

The characterization of the distributions paid to holders of MRP Shares and common stock as either a dividend (eligible to be treated as qualified dividend income) or a distribution (return of capital) is determined after the end of the fiscal year based on the Company s actual earnings and profits and, therefore, the characterization may differ from preliminary estimates.

I. *Partnership Accounting Policy* The Company records its pro-rata share of the income (loss), 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.

J. *Federal and State Income Taxation* The Company, as a corporation, is obligated to pay federal and state income tax on its taxable income. The Company invests its assets primarily in MLPs, which generally are treated as partnerships for federal income tax purposes. As a limited partner in the MLPs, the Company includes its allocable share of the MLP s taxable income or loss in computing its own taxable income. Deferred income taxes reflect (i) taxes on unrealized gains (losses), which are attributable to the difference between fair value and tax cost 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 (ASC 740), 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 utilizes the average cost method to compute the adjusted tax cost basis of its MLP securities.

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. Tax years subsequent to fiscal year 2012 remain open and subject to examination by the federal and state tax authorities.

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

In October 2016, the Securities and Exchange Commission (SEC) adopted new rules and forms, and amendments to certain current rules and forms, to modernize reporting and disclosure of information by registered investment companies. The amendments to Regulation S-X will require standardized, enhanced disclosure about derivatives in investment company financial statements, and will also change the rules

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governing the form and content of such financial statements. The amendments to Regulation S-X take effect on August 1, 2017. At this time, the Company is assessing the anticipated impact of these regulatory developments and will adopt these when they become effective.

Interest rate swap contracts. The Company may use hedging techniques such as interest rate swaps to mitigate potential interest rate risk on a portion of the Company s leverage. Such interest rate swaps would principally be used to protect the Company against higher costs on its leverage resulting from increases in 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.

The Company would 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. If the Company writes a call option on a security, the Company has the obligation upon exercise of the option to deliver the underlying security upon payment of the exercise price. The Company will only write call options on securities that the Company holds in its portfolio (*i.e.*, covered calls).

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.

L. *Indemnifications* Under the Company s organizational documents, its officers and directors are indemnified against certain liabilities arising out of the performance of their duties to the Company. In addition, in the normal course of business, the Company enters into contracts that provide general indemnification to other parties. The Company s maximum exposure under these arrangements is unknown, as this would involve future

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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.

M. *Offering and Debt Issuance Costs* Offering costs incurred by the Company related to the issuance of its common stock reduce additional paid-in capital when the stock is issued. Costs incurred by the Company related to the issuance of its debt (credit facility, term loan or notes) or its preferred stock are capitalized and amortized over the period the debt or preferred stock is outstanding.

In April 2015, the FASB issued Accounting Standards Update (ASU) No. 2015-03 Interest Imputation of Interest (Subtopic 835-30), Simplifying the Presentation of Debt Issuance Costs . ASU No. 2015-03 requires that all costs incurred to issue debt be presented in the balance sheet as a direct deduction from the carrying value of the debt. In August 2015, the FASB issued ASU No. 2015-15 Interest Imputation of Interest (Subtopic 835-30), Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements . ASU No. 2015-15 states that the SEC staff will not object to an entity presenting the cost of securing a revolving line of credit as an asset, regardless of whether a balance is outstanding. In the first quarter of fiscal 2017, the Company adopted ASU No. 2015-03 and ASU No. 2015-15 and has classified the costs incurred to issue Notes and MRP Shares as a deduction from the carrying value of Notes and MRP Shares on the Statement of Assets and Liabilities. Previously, these issuance costs were capitalized as an asset on the Statement of Assets and Liabilities. Additionally, the Company has updated its disclosure in Notes 11 and 12 related to the unamortized Note and MRP Share issuance costs. For the purpose of calculating the Company s asset coverage ratios pursuant to the 1940 Act, deferred issuance costs are not deducted from the carrying value of Notes and MRP Shares. There was no financial reporting impact to information presented for prior periods as a result of this accounting standard update.

3. Fair Value

The Fair Value Measurement Topic of the FASB Accounting Standards Codification (ASC 820) defines fair value as the price at which an orderly transaction to sell an asset or to transfer a liability would take place between market participants under current market conditions at the measurement date. As required by ASC 820, the Company has performed an analysis of all assets and liabilities (other than deferred taxes) measured at fair value to determine the significance and character of all inputs to their fair value determination. Inputs are the assumptions, along with considerations of risk, that a market participant would use to value an asset or a liability. In general, observable inputs are based on market data that is readily available, regularly distributed and verifiable that the Company obtains from independent, third-party sources. Unobservable inputs are developed by the Company based on its own assumptions of how market participants would value an asset or a liability.

The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into the following three broad categories.

Level 1 Valuations based on 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 Valuations based on quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets. Level 2 inputs are those in markets for which there are few transactions, the prices are not current, little public information exists or instances where prices vary substantially over time or among brokered market makers.

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

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The following table presents the Company s assets and liabilities measured at fair value on a recurring basis at May 31, 2017, and the Company presents these assets and liabilities by security type and description on its Schedule of Investments. Note that the valuation levels below are not necessarily an indication of the risk or liquidity associated with the underlying investment.

	Total	Quoted Prices in Active Markets (Level 1)	Prices with Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Assets at Fair Value				
Equity investments	$ 3,841,036	$ 3,684,843	$ 34,072[1]	$ 122,121
Liabilities at Fair Value				
Call option contracts written	$ 108	$	$ 108	$

(1) The Company s investment in Plains AAP, L.P. (PAGP-AAP) is exchangeable on a one-for-one basis into either Plains GP Holdings, L.P. (PAGP) shares or Plains All American Pipeline, L.P. (PAA) units at the Company s option. The Company values its PAGP-AAP investment on an as exchanged basis based on the higher public market value of either PAGP or PAA. As of May 31, 2017, the Company s PAGP-AAP investment is valued at PAGP s closing price. The Company categorizes its investment as a Level 2 security for fair value reporting purposes.

The Company did not have any liabilities that were measured at fair value on a recurring basis using significant unobservable inputs (Level 3) at May 31, 2017. For the six months ended May 31, 2017, there were no transfers between Level 1 and Level 2.

As of May 31, 2017, the Company had Notes outstanding with aggregate principal amount of $747,000 and 11,680,000 shares of MRP Shares outstanding with a total liquidation value of $292,000. See Note 11 Notes and Note 12 Preferred Stock.

Of the $292,000 of MRP Shares, Series F ($125,000 liquidation value) is publicly traded on the NYSE. As a result, the Company categorizes this series of MRP Shares as Level 1. The remaining series of MRP Shares and all of the Notes were issued in private placements to institutional investors and are not listed on any exchange or automated quotation system. As such, the Company categorizes all of the Notes ($747,000 aggregate principal amount) and the remaining MRP Shares ($167,000 aggregate liquidation value) as Level 3 and determines the fair value of these instruments based on estimated market yields and credit spreads for comparable instruments with similar maturity, terms and structure.

The Company records these Notes and MRP Shares on its Statement of Assets and Liabilities at principal amount or liquidation value. As of May 31, 2017, the estimated fair values of these leverage instruments are as follows.

Instrument	Principal Amount/ Liquidation Value	Fair Value
Notes (Series W, Z through GG and II through OO)	$ 747,000	$ 777,100
MRP Shares (Series C, H, I and J)	$ 167,000	$ 169,700
MRP Shares (Series F)	$ 125,000	$ 127,200

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The following tables present the Company s assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the three and six months ended May 31, 2017.

Three Months Ended May 31, 2017	**Equity Investments**
Balance February 28, 2017	$ 135,358
Purchases	
Transfers out to Level 1 and 2	(4,138)
Realized gains (losses)	
Unrealized gains (losses), net	(9,099)
Balance May 31, 2017	$ 122,121

Six Months Ended May 31, 2017	**Equity Investments**
Balance November 30, 2016	$ 126,321
Purchases	13,868
Transfers out to Level 1 and 2	(20,143)
Realized gains (losses)	
Unrealized gains (losses), net	2,075
Balance May 31, 2017	$ 122,121

The purchase of $13,868 relates to the Company s investments in Dominion Midstream Partners, LP convertible preferred units (December 2016).

The $4,138 and $20,143 transfers out to Level 1 relate to the Company s investments in Rice Midstream Partners LP that became marketable during the first quarter of 2017 and Western Gas Partners, LP convertible preferred units that were converted into common units during the first and second quarters of 2017. The Company utilizes the beginning of the reporting period method for determining transfer between levels.

The $9,099 of net unrealized losses and $2,075 of net unrealized gains relate to investments that are still held at the end of the reporting period, and the Company includes these unrealized gains and losses on the Statement of Operations Net Change in Unrealized Gains (Losses).

Valuation Techniques and Unobservable Inputs

Unless otherwise determined by the Board of Directors, the Company values its private investments in public equity (PIPE) investments that are convertible into or otherwise will become publicly tradeable (*e.g.,* through subsequent registration or expiration of a restriction on trading) based on the market value of the publicly-traded security less a discount. This discount is initially equal to the discount negotiated at the time the Company agrees to a purchase price. To the extent that such securities are convertible or otherwise become publicly traded within a time frame that may be reasonably determined, this discount will be amortized on a straight line basis over such estimated time frame.

The Company purchased convertible preferred units of Western Gas Partners, LP (WES) during the second quarter of 2016. During the first quarter of 2017, the Company entered into an early conversion agreement with WES (the WES Conversion Agreement) whereby the terms of the original purchase agreement were modified to allow the early conversion of the WES convertible preferred units into common units on a one-for-one basis. Under the terms of the WES Conversion Agreement, fifty percent of the WES convertible preferred units were converted into common units during the first quarter of 2017 and fifty percent converted into common units during the second quarter of 2017. As of May 31, 2017, all of the WES convertible preferred units held by the Company have converted into common units.

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The Company owns convertible preferred units of Capital Product Partners L.P. (CPLP), Dominion Midstream Partners, LP (DM) and MPLX LP (MPLX). The convertible preferred units are (in the case of CPLP), or will be (in the case of DM and MPLX), convertible on a one-for-one basis into common units and are senior to the underlying common units in terms of liquidation preference and priority of distributions. The Company s Board of Directors has determined that it is appropriate to value the convertible preferred units using a convertible pricing model. This model takes into account the attributes of the convertible preferred units, including the preferred dividend, conversion ratio and call features, to determine the estimated value of such units. In using this model, the Company estimates (i) the credit spread for the convertible preferred units, which is based on credit spreads for comparable companies for CPLP and DM and the credit spread of the partnership s unsecured notes in the case of MPLX, and (ii) the expected volatility for the underlying common units, which is based on historical volatility. For CPLP, the Company applies a discount to the value derived from the convertible pricing model to account for an expected discount in market prices for its convertible securities relative to the values calculated using the pricing model. For DM and MPLX, the Company applies a discount to the value derived from the convertible pricing model to account for the expected period of illiquidity. In each case, if the resulting price for the convertible preferred units is less than the public market price for the underlying common units at such time, the public market price for the common units will be used to value the convertible preferred units.

The Company also has a private investment in the Creditors Trust of Miller Bros. Coal, LLC (Clearwater Trust), which is a privately held entity. Clearwater Trust has an overriding royalty interest in certain coal reserves that were sold as part of the reorganization of Clearwater Natural Resources, LP. Clearwater Trust has agreed to sell this overriding royalty interest and is receiving monthly installment payments through September 2017 from the buyer as payment for this royalty interest. The Company values its interest in Clearwater Trust based on the discounted cash flow from the expected monthly installment payments. Generally an increase in the discount rate selected by the Company will result in a decrease in the fair value of Clearwater Trust.

Due to the inherent uncertainty of determining the fair value of investments that do not have a readily available market value, the fair value of the Company s investments may fluctuate from period to period. Additionally, the fair value of the Company s investments may differ from the values that would have been used had a ready market existed for such investments and may differ materially from the values that the Company may ultimately realize.

The following table summarizes the significant unobservable inputs that the Company used to value its portfolio investments categorized as Level 3 as of May 31, 2017:

Quantitative Table for Valuation Techniques

				Range		Weighted
Assets at Fair Value	**Fair Value**	**Valuation Technique**	**Unobservable Inputs**	**Low**	**High**	**Average**
DM and MPLX valued based on pricing model	$ 99,909	- Convertible pricing model	- Credit spread	4.3%	4.8%	4.5%
				22.5%	25.0%	23.8%
			- Volatility	0.0%	1.0%	0.2%
			- Illiquidity discount			
CPLP valued based on pricing model	22,182	- Convertible pricing model	- Credit spread	7.3%	8.0%	7.6%
			- Volatility	40.0%	45.0%	42.5%
			- Discount for marketability	10.0%	10.0%	10.0%

Clearwater Trust	30	- Discounted cash flow	- Discount rate	20%	20%	20%
Total	$ 122,121					

4. Concentration of Risk

The Company s investments are concentrated in the energy sector. The focus of the Company s portfolio within the energy sector may present more risks than if the Company s portfolio were broadly diversified across numerous

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sectors of the economy. A downturn in the energy sector would have a larger impact on the Company than on an investment company that does not focus on the energy sector. The performance of securities in the energy sector may lag the performance of other industries or the broader market as a whole. Additionally, to the extent that the Company invests a relatively high percentage of its assets in the securities of a limited number of issuers, the Company may be more susceptible than a more widely diversified investment company to any single economic, political or regulatory occurrence. At May 31, 2017, the Company had the following investment concentrations:

Category	Percent of Long-Term Investments
Securities of energy companies	100.0%
Equity securities	100.0%
Securities of MLPs[(1)]	95.6%
Midstream Energy Companies	100.0%
Largest single issuer	13.9%
Restricted securities	4.1%

(1) Securities of MLPs consist of energy-related partnerships and their affiliates (including affiliates of MLPs that own general partner interests or, in some cases subordinated units, registered or unregistered common units, or other limited partner units in a MLP) and partnerships that elected to be taxed as a corporation for federal income tax purposes.

5. Agreements and Affiliations

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

B. *Investment Management Agreement* The Company has entered into an investment management agreement with KA Fund Advisors, LLC (KAFA) under which KAFA, 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, KAFA receives an investment management fee from the Company. KAFA has also entered into a fee waiver agreement with the Company that provides for a management fee of 1.375% on average total assets up to $4,500,000, a fee of 1.25% on average total assets between $4,500,000 and $9,500,000, a fee of 1.125% on average total assets between $9,500,000 and $14,500,000 and a fee of 1.0% on average total assets in excess of $14,500,000. On March 30, 2017, the Company renewed its investment management agreement and fee waiver agreement with KAFA for a period of one year. The investment management and fee waiver agreements will expire on March 31, 2018 and may be renewed annually thereafter upon approval of the Company s Board of Directors (including a majority of the Company s directors who are not interested persons of the Company, as such term is defined in the 1940 Act). For the six months ended May 31, 2017, the Company paid management fees at an annual rate of 1.375% of the Company s average quarterly total assets (as defined in the investment management agreement).

For purposes of calculating the management fee the average total assets for each quarterly period are determined by averaging the total assets at the last day of that quarter with the total assets at the last day of the prior quarter. The Company s total assets are equal to the Company s gross asset value (which includes assets attributable to 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 dividends and distributions on any outstanding common stock and accrued and unpaid dividends and 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

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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.

C. *Portfolio Companies* From time to time, the Company may control or may be an affiliate of one or more of its portfolio companies, as each of these terms is defined in the 1940 Act. In general, under the 1940 Act, the Company would be presumed to control a portfolio company if the Company and its affiliates owned 25% or more of its outstanding voting securities and would be an affiliate of a portfolio company if the Company and its affiliates 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 are several factors that determine whether or not a security should be considered a voting security in complex structures such as limited partnerships of the kind in which the Company invests. The Company also notes that the Securities and Exchange Commission (the SEC) staff has issued guidance on the circumstances under which it would consider a limited partnership interest to constitute a voting security. Under most partnership agreements, the management of the partnership is vested in the general partner, and the limited partners, individually or collectively, have no rights to manage or influence management of the partnership through such activities as participating in the selection of the managers or the board of the limited partnership or the general partner. As a result, the Company believes that many of the limited partnership interests in which it invests should not be considered voting securities. However, it is possible that the SEC staff may consider the limited partner interests the Company holds in certain limited partnerships to be voting securities. If such a determination were 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 making such a determination as to whether to treat any class of limited partnership interests the Company holds as a voting security, the Company considers, among other factors, whether or not the holders of such limited partnership interests have the right to elect the board of directors of the limited partnership or the general partner. If the holders of such limited partnership interests do not have the right to elect the board of directors, the Company generally has not treated such security as a voting security. In other circumstances, based on the facts and circumstances of those partnership agreements, including the right to elect the directors of the general partner, the Company has treated those securities as voting securities. If the Company does not consider the security to be a voting security, it will not consider such partnership to be an affiliate unless the Company and its affiliates own more than 25% of the outstanding securities of such partnership. Additionally, certain partnership agreements give common unitholders the right to elect the partnership s board of directors, but limit the amount of voting securities any limited partner can hold to no more than 4.9% of the partnership s outstanding voting securities *(i.e.*, any amounts held in excess of such limit by a limited partner do not have voting rights). In such instances, the Company does not consider itself to be an affiliate if it owns more than 5% of such partnership s common units.

There is no assurance that the SEC staff will not consider that other limited partnership securities that the Company owns and does not treat as voting securities are, in fact, voting securities for the purposes of Section 17 of the 1940 Act. If such determination were made, the Company will be required to abide by the restrictions on control or affiliate transactions as proscribed in the 1940 Act. The Company or any portfolio company that it controls, and its affiliates, may from time to time engage in certain of such joint transactions, purchases, sales and loans in reliance upon and in compliance with the conditions of certain exemptive rules promulgated by the SEC. The Company cannot make assurances, however, that it would be able to satisfy the conditions of these rules with respect to any particular eligible transaction, or even if the Company were allowed to engage in such a transaction, that the terms would be more or as favorable to the Company or any company that it controls as those that could be obtained in an arm s length transaction. As a result of these prohibitions, restrictions may be imposed on the size of positions that may be taken for the Company or on the type of investments that it could make.

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Clearwater Trust At May 31, 2017, the Company held approximately 63% 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 GP Holdings, L.P., Plains AAP, L.P. and Plains All American Pipeline, L.P. Robert V. Sinnott is Co-Chairman of Kayne Anderson Capital Advisors, L.P. (KACALP), the managing member of KAFA. Mr. Sinnott also serves as a director of PAA GP Holdings LLC, which is the general partner of Plains GP Holdings L.P. (PAGP). Members of senior management of KACALP and KAFA and various affiliated funds managed by KACALP own PAGP shares, Plains All American Pipeline, L.P. (PAA) units and interests in Plains AAP, L.P. (PAGP-AAP). The Company believes that it is an affiliate of PAA, PAGP and PAGP-AAP under the 1940 Act by virtue of (i) the Company s and other affiliated Kayne Anderson funds ownership interest in PAA, PAGP and PAGP-AAP and (ii) Mr. Sinnott s participation on the board of PAA GP Holdings LLC.

ONEOK, Inc. and ONEOK Partners, L.P. Kevin S. McCarthy, the Chief Executive Officer of the Company, served as a director of ONEOK, Inc. (OKE) from December 2015 through May 1, 2017. Effective May 2, 2017, Mr. McCarthy resigned as a director of OKE. OKE is the general partner of ONEOK Partners, L.P. (OKS). Despite Mr. McCarthy s participation on the board of OKE during a portion of the six months ended May 31, 2017, the Company does not believe that it is an affiliate of OKE or OKS because the Company s and other Kayne Anderson funds aggregate ownership of each entity does not meet the criteria described above.

The following table summarizes the Company s investments in affiliates as of May 31, 2017:

Investment	No. of Shares/Units (in 000 s)	Dividends and Distributions Received During the: Three Months Ended May 31, 2017	Six Months Ended May 31, 2017	Value
Clearwater Trust	N/A	$	$ 56	$ 30
Plains All American Pipeline, L.P.	8,962	4,929	9,825	237,307
Plains GP Holdings, L.P.	140	77	77	3,734
Plains GP Holdings, L.P. Plains AAP, L.P.	1,278	702	1,405	34,072
Total		$ 5,708	$ 11,363	$ 275,143

6. Income Taxes

The Company s taxes include current and deferred income taxes. Current income taxes reflect the estimated income tax liability or asset of the Company as of a measurement date. Deferred income taxes reflect (i) taxes on net unrealized gains (losses), which are attributable to the difference between fair market value and tax cost 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 and capital losses, if any.

At May 31, 2017, the components of the Company s current and deferred tax assets and liabilities are as follows.

Income tax receivable	$ 7,891
Deferred tax assets:	

Net operating loss carryforwards	Federal	$ 80,983
Net operating loss carryforwards	State	5,932
Capital loss carryforwards	State	1,396
AMT credit carryforwards		3,631
Deferred tax liabilities:		
Net unrealized gains on investment securities		(705,685)
Total deferred income tax liability, net		$ (613,743)

KAYNE ANDERSON MLP INVESTMENT COMPANY

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(UNAUDITED)

During the six months ended May 31, 2017, the Company received refunds of $10,790 related to federal carryback claims filed during the fourth quarter of fiscal 2016 and received $37 of state refunds. The income tax receivable of $7,891 includes (i) $7,740 of federal carryback claims that are expected to be filed shortly after filing the fiscal 2016 tax returns in August 2017 and (ii) state estimated overpayment amounts of $151. The Company is also exploring the ability to carry back claims to various states.

At May 31, 2017, the Company had a federal net operating loss carryforward of $237,659 (deferred tax asset of $80,983). 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. The federal net operating loss carryforward begins to expire in 2030. In addition, the Company has state net operating loss carryforwards of $219,097 (deferred tax asset of $5,932). The majority of the state net operating loss carryforwards expires during 2035.

At May 31, 2017, the Company had a state capital loss carryforward of $52,848 (deferred tax asset of $1,396). Realization of the capital loss carryforward is dependent on generating sufficient capital gains prior to the expiration of the capital loss carryforward in 2021.

At May 31, 2017, the Company had alternative minimum tax (AMT) credit carryforwards of $3,631. AMT credits can be used to reduce regular tax to the extent that regular tax exceeds the AMT in a future year. AMT credits do not expire.

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 twenty 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.

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 as follows:

	For the Three Months Ended May 31, 2017	For the Six Months Ended May 31, 2017
Computed federal income tax expense at 35%	$ 119,116	$ (15,999)
State income tax expense, net of federal tax	5,939	(656)
Non-deductible distributions on MRP Shares, dividend received deductions and other, net	(1,014)	(1,991)
Total income tax benefit (expense)	$ 124,041	$ (18,646)

The Company primarily invests in equity securities issued by MLPs, which generally are treated as partnerships for federal income tax purposes. As a limited partner of MLPs, the Company includes its allocable share of such MLPs income or loss in computing its own taxable income or loss. Additionally, for income tax purposes, the Company reduces the cost basis of its MLP investments by the cash distributions received, and increases or decreases the cost basis of its MLP investments by its allocable share of the MLP s income or loss.

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KAYNE ANDERSON MLP INVESTMENT COMPANY

NOTES TO FINANCIAL STATEMENTS

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

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During the six months ended May 31, 2017, the Company reduced its tax cost basis by $154,323 due to its fiscal 2016 net allocated losses from its MLP investments.

The Company utilizes the average cost method to compute the adjusted tax cost basis of its MLP securities.

At May 31, 2017, the cost basis of investments for federal income tax purposes was $1,953,402 and the premiums received on outstanding options contracts written were $240. The cost basis for federal income tax purposes is $915,213 lower than the cost basis for GAAP reporting purposes primarily due to the additional basis adjustments attributable to the Company s share of the allocated losses from its MLP investments. At May 31, 2017, gross unrealized appreciation and depreciation of investments and options for federal income tax purposes were as follows:

Gross unrealized appreciation of investments (including options, if any)	$ 1,942,535
Gross unrealized depreciation of investments (including options, if any)	(54,769)
Net unrealized appreciation of investments	$ 1,887,766

7. Restricted Securities

From time to time, the Company s ability to sell certain of its investments is subject to certain legal or contractual restrictions. For instance, private investments that are not registered under the Securities Act of 1933, as amended (the Securities Act), 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 May 31, 2017, the Company held the following restricted investments:

Investment	Acquisition Date	Type of Restriction	Number of Units (in 000 s)	Cost Basis (GAAP)	Fair Value	Fair Value Per Unit	Percent of Net Assets	Percent of Total Assets
Level 2 Investments[1]								
Plains GP Holdings, L.P.								
Plains AAP, L.P.	[2]	[3]	1,278	$ 8,362	$ 34,072	$ 26.67	1.6%	0.9%
Level 3 Investments[4]								
Capital Product Partners L.P.								
Class B Units	[2]	[5]	3,030	$ 17,290	$ 22,182	$ 7.32	1.0%	0.6%
Clearwater Trust								
Trust Interest	[6]	[7]	N/A	2,639	30	N/A		
Dominion Midstream Partners, LP								
Convertible Preferred Units	12/1/16	[5]	525	13,868	15,918	30.30	0.8	0.4
MPLX LP								
Convertible Preferred Units	5/13/16	[5]	2,255	72,217	83,991	37.24	4.0	2.2
Total				$ 106,014	$ 122,121		5.8%	3.2%

Total of all restricted securities	$ 114,376	$ 156,193	7.4%	4.1%

(1) The Company values its investment in Plains AAP, L.P. (PAGP-AAP) on an as exchanged basis based on the higher public market value of either Plains GP Holdings, L.P. (PAGP) or Plains All American, L.P. (PAA). As of May 31, 2017, the Company s PAGP-AAP investment is valued at PAGP s closing price. See Note 3 Fair Value.

(2) Security was acquired at various dates in prior fiscal years.

(3) The Company s investment in PAGP-AAP is exchangeable on a one-for-one basis into either PAGP shares or PAA units at the Company s option. Upon exchange, the PAGP shares or the PAA units will be freely tradable.

(4) Securities are valued using inputs reflecting the Company s own assumptions as more fully described in Note 2 Significant Accounting Policies and Note 3 Fair Value.

(5) Unregistered or restricted security of a publicly-traded company.

KAYNE ANDERSON MLP INVESTMENT COMPANY

NOTES TO FINANCIAL STATEMENTS

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

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(6) The Company holds an interest in the Clearwater Trust consisting primarily of a coal royalty interest. See Note 5 Agreements and Affiliations.

(7) Unregistered security of a private trust.

8. Derivative Financial Instruments

As required by the Derivatives and Hedging Topic of the FASB Accounting Standards Codification (ASC 815), the following 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 and six months ended May 31, 2017 were as follows:

Three Months Ended May 31, 2017	Number of Contracts	Premium
Call Options Written		
Options outstanding at February 28, 2017		$
Options written	6,350	541
Options subsequently repurchased[(1)]	(3,650)	(301)
Options exercised		
Options expired		
Options outstanding at May 31, 2017	2,700	$ 240

Six Months Ended May 31, 2017	Number of Contracts	Premium
Call Options Written		
Options outstanding at November 30, 2016	1,000	$ 124
Options written	6,350	541
Options subsequently repurchased[(1)]	(3,650)	(301)
Options exercised	(1,000)	(124)
Options expired		
Options outstanding at May 31, 2017[(2)]	2,700	$ 240

(1) The price at which the Company subsequently repurchased the options was $64 which resulted in net realized gains of $237.

(2) The percentage of long-term investments subject to call options written was 0.3% at May 31, 2017.

Interest Rate Swap Contracts The Company may enter into interest rate swap contracts to partially hedge itself from increasing expense on its leverage resulting from increasing interest rates. 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 May 31, 2017, 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 Hedging Instruments	Statement of Assets and Liabilities Location	Fair Value as of May 31, 2017
Call options written	Call option contracts written	$ (108)

The following tables set forth the effect of the Company s derivative instruments on the Statement of Operations:

		For the Three Months Ended May 31, 2017	
Derivatives Not Accounted for as Hedging Instruments	Location of Gains/(Losses) on Derivatives Recognized in Income	Net Realized Gains/(Losses) on Derivatives Recognized in Income	Change in Unrealized Gains/(Losses) on Derivatives Recognized in Income
Call options written	Options	$ 237	$ 132

		For the Six Months Ended May 31, 2017	
Derivatives Not Accounted for as Hedging Instruments	Location of Gains/(Losses) on Derivatives Recognized in Income	Net Realized Gains/(Losses) on Derivatives Recognized in Income	Change in Unrealized Gains/(Losses) on Derivatives Recognized in Income
Call options written	Options	$ 237	$ 289

9. Investment Transactions

For the six months ended May 31, 2017, the Company purchased and sold securities in the amounts of $307,045 and $289,345 (excluding short-term investments and options, if any).

10. Credit Facility and Term Loan

At May 31, 2017, the Company had a $150,000 unsecured revolving credit facility (the Credit Facility) with a syndicate of lenders. The Credit Facility has a two-year term maturing on February 28, 2018. The interest rate on outstanding loan balances may vary between LIBOR plus 1.60% and LIBOR plus 2.25%, depending on the Company s asset coverage ratios. The Company pays a fee of 0.30% per annum on any unused amounts of the Credit Facility. For the six months ended May 31, 2017, the Company did not have any borrowings outstanding under the Credit Facility.

At May 31, 2017, the Company had a $150,000 unsecured term loan (the Term Loan). The Term Loan has a five-year commitment maturing on February 18, 2019, and borrowings under the Term Loan bear interest at a rate of LIBOR plus 1.30%. The Company pays a fee of 0.25% per annum on any unused amount of the Term Loan. Amounts borrowed under the Term Loan may be repaid and subsequently reborrowed. For the six months ended May 31, 2017, the average amount outstanding under the Term Loan was $78,687 with a weighted average interest rate of

2.16%. As of May 31, 2017, the Company had $72,000 outstanding under the Term Loan at an interest rate of 2.35%. The Company s ability to borrow under the Term Loan is subject to meeting a minimum net asset threshold ($1,889,235 as of May 31, 2017). As of May 31, 2017, the Company s net asset value ($2,105,136) exceeded this threshold.

As of May 31, 2017, the Company was in compliance with all financial and operational covenants required by the Credit Facility and Term Loan. See Financial Highlights for the Company s asset coverage ratios under the 1940 Act.

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11. Notes

At May 31, 2017, the Company had $747,000 aggregate principal amount of Notes outstanding. On April 24, 2017, the Company redeemed all $20,000 of its Series Y Notes at par value. The table below sets forth the key terms of each series of Notes outstanding at May 31, 2017.

Series	Principal Outstanding, November 30, 2016	Principal Redeemed	Principal Outstanding, May 31, 2017	Unamortized Issuance Costs	Estimated Fair Value May 31, 2017	Fixed Interest Rate	Maturity Date
W	$ 31,000	$	$ 31,000	$ 30	$ 32,200	4.38%	5/26/18
Y	20,000	(20,000)				2.91%	5/3/17
Z	15,000		15,000	33	15,500	3.39%	5/3/19
AA	15,000		15,000	44	15,700	3.56%	5/3/20
BB	35,000		35,000	123	36,900	3.77%	5/3/21
CC	76,000		76,000	301	81,100	3.95%	5/3/22
DD	75,000		75,000	183	76,400	2.74%	4/16/19
EE	50,000		50,000	188	51,600	3.20%	4/16/21
FF	65,000		65,000	296	68,000	3.57%	4/16/23
GG	45,000		45,000	229	47,000	3.67%	4/16/25
II	30,000		30,000	98	30,700	2.88%	7/30/19
JJ	30,000		30,000	134	31,300	3.46%	7/30/21
KK	80,000		80,000	458	85,100	3.93%	7/30/24
LL	50,000		50,000	219	51,000	2.89%	10/29/20
MM	40,000		40,000	208	41,200	3.26%	10/29/22
NN	20,000		20,000	110	20,600	3.37%	10/29/23
OO	90,000		90,000	514	92,800	3.46%	10/29/24
	$ 767,000	$ (20,000)	$ 747,000	$ 3,168	$ 777,100		

Holders of the fixed rate Notes are entitled to receive cash interest payments semi-annually (on June 19 and December 19) at the fixed rate. As of May 31, 2017, the weighted average interest rate on the outstanding Notes was 3.47%.

As of May 31, 2017, each series of Notes was rated AAA by FitchRatings. On April 18, 2017, Kroll Bond Rating Agency (KBRA) initiated coverage on the Company s Notes and assigned a rating of AAA . In the event the credit rating on any series of Notes falls below A- (for either FitchRatings or KBRA), the interest rate on such series will increase by 1% during the period of time such series is rated below A- . The Company is required to maintain a current rating from one rating agency with respect to each series of Notes and is prohibited from having any rating of less than investment grade (BBB-) with respect to each series of Notes.

The Notes were issued in private placement offerings to institutional investors and are not listed on any exchange or automated quotation system. The 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 Notes, the Company may not declare dividends or make other distributions on shares of its common stock or make purchases of such shares if, at any time of the declaration, distribution or purchase, asset coverage with respect to the outstanding Notes would be less than 300%.

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

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(UNAUDITED)

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

At May 31, 2017, the Company was in compliance with all covenants under the Notes agreements.

12. Preferred Stock

At May 31, 2017, the Company had 11,680,000 shares of MRP Shares outstanding, with a total liquidation value of $292,000 ($25.00 per share). On May 15, 2017, the Company redeemed all 320,000 shares of its Series B MRP Shares at liquidation value. The table below sets forth the key terms of each series of the MRP Shares at May 31, 2017.

Series	Liquidation Value November 30, 2016	Liquidation Value Redeemed	Liquidation Value May 31, 2017	Unamortized Issuance Costs	Estimated Fair Value May 31, 2017	Rate	Mandatory Redemption Date
B	$ 8,000	$ (8,000)	$	$	$	4.53%	11/9/17
C	42,000		42,000	204	44,300	5.20%	11/9/20
F[(1)]	125,000		125,000	1,144	127,200	3.50%	4/15/20
H	50,000		50,000	402	50,900	4.06%	7/30/21
I	25,000		25,000	234	25,100	3.86%	10/29/22
J	50,000		50,000	653	49,400	3.36%	11/9/21
	$ 300,000	$ (8,000)	$ 292,000	$ 2,637	$ 296,900		

(1) Series F MRP Shares are publicly traded on the NYSE under the symbol KYNPRF . The fair value is based on the price of $25.44 as of May 31, 2017.

Holders of the Series C, H, I and J MRP Shares are entitled to receive cumulative cash dividend payments on the first business day following each quarterly period (February 28, May 31, August 31 and November 30). Holders of the Series F MRP Shares are entitled to receive cumulative cash dividend payments on the first business day of each month.

As of May 31, 2017, each series of MRP Shares was rated A by FitchRatings. On April 18, 2017, KBRA initiated coverage on the Company s MRP Shares and assigned a rating of A+ .

The table below outlines the terms of each series of MRP Shares. The dividend rate on the Company s MRP Shares will increase if the credit rating is downgraded below A . Further, the annual dividend rate for all series of MRP Shares will increase by 4.0% if no ratings are maintained, and the annual dividend rate will increase by 5.0% if the Company fails to make dividend or certain other payments. The Company is required to maintain a current rating from one rating agency with respect to each series of MRP Shares.

	Series C, H, I and J	Series F
Ratings Threshold	A	A
Method of Determination	Lowest Credit Rating	Highest Credit Rating
Increase in Annual Dividend Rate	0.5% to 4.0%	0.75% to 4.0%

The MRP Shares rank senior to all of the Company s outstanding common shares and on parity with any other preferred stock. The MRP Shares are 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.

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Under the terms of the MRP Shares, the Company may not declare dividends or pay other distributions on shares of its common stock or make 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% or the Company would fail to maintain its basic maintenance amount as stated in the Company s rating agency guidelines.

The holders of the MRP Shares 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 MRP Shares or the holders of common stock. The holders of the MRP Shares, voting separately as a single class, have the right to elect at least two directors of the Company.

At May 31, 2017, the Company was in compliance with the asset coverage and basic maintenance requirements of its MRP Shares.

13. Common Stock

At May 31, 2017, the Company had 188,320,000 shares of common stock authorized and 114,279,700 shares outstanding. As of May 31, 2017, KACALP owned 285,929 shares of the Company. Transactions in common shares for the six months ended May 31, 2017 were as follows:

Shares outstanding at November 30, 2016	113,687,509
Shares issued through reinvestment of distributions	592,191
Shares outstanding at May 31, 2017	114,279,700

14. Subsequent Events

On June 29, 2017, the Company declared its quarterly distribution of $0.45 per common share for the second quarter. The total distribution of $51,426 was paid July 14, 2017. Of this total, pursuant to the Company s dividend reinvestment plan, $5,186 was reinvested into the Company through the issuance of 296,015 shares of common stock.

The Company has performed an evaluation of subsequent events through the date the financial statements were issued and has determined that no additional items require recognition or disclosure.

KAYNE ANDERSON MLP INVESTMENT COMPANY

PRIVACY POLICY NOTICE

(UNAUDITED)

Rev. 01/2011

FACTS

WHAT DOES KAYNE ANDERSON MLP INVESTMENT COMPANY (KYN) DO WITH YOUR PERSONAL INFORMATION?

Why?

Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.

What?

The types of personal information we collect and share depend on the product or service you have with us. This information can include:

Social Security number and account balances

Payment history and transaction history

Account transactions and wire transfer instructions

How?

When you are *no longer* our customer, we continue to share your information as described in this notice.
All financial companies need to share customers personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers personal information; the reasons KYN chooses to share; and whether you can limit this sharing.

Reasons we can share your personal information	Does KYN share?	Can you limit this sharing?
For our everyday business purposes	Yes	No
such as to process your transactions, maintain your account(s), respond to court orders and legal investigations, or report to credit bureaus		
For our marketing purposes	No	No
to offer our products and services to you		
For joint marketing with other financial companies	No	We don t share
For our affiliates everyday business purposes	No	We don t share
information about your transactions and experiences		
For our affiliates everyday business purposes	No	We don t share
information about your creditworthiness		

For nonaffiliates to market to you	No	We don t share

Questions? Call 877-657-3863 or go to http://www.kaynefunds.com

KAYNE ANDERSON MLP INVESTMENT COMPANY

PRIVACY POLICY NOTICE

(UNAUDITED)

Who we are	
Who is providing this notice?	KYN
What we do	
How does KYN protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secured files and buildings. Access to your personal information is on a need-to-know basis. KYN has adopted internal policies to protect your non-public personal information.
How does KYN collect my personal information?	We collect your personal information, for example, when you Provide account information Buy securities from us or make a wire transfer Give us your contact information We also collect your personal information from other companies.
Why can t I limit all sharing?	Federal law gives you the right to limit only sharing for affiliates everyday business purposes information about your creditworthiness affiliates from using your information to market to you sharing for nonaffiliates to market to you

State laws and individual companies may give you additional rights to limit sharing.

Definitions	
Affiliates	Companies related by common ownership or control. They can be financial and nonfinancial companies. *KYN does not share with our affiliates.*
Nonaffiliates	Companies not related by common ownership or control. They can be financial and nonfinancial companies. *KYN does not share with nonaffiliates so they can market to you.*
Joint marketing	A formal agreement between nonaffiliated financial companies that together market financial products or services to you. *KYN doesn t jointly market.*

Other important information
None.

KAYNE ANDERSON MLP INVESTMENT COMPANY

DIVIDEND REINVESTMENT PLAN

(UNAUDITED)

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

1. Unless a stockholder specifically elects to receive cash as set forth below, all distributions hereafter declared by the Board shall be payable in shares of the Common Stock of the Company, and no action shall be required on such stockholder s part to receive a distribution in stock.

2. Such distributions shall be payable on such date or dates as may be fixed from time to time by the Board to stockholders of record at the close of business on the record date(s) established by the Board for the distribution involved.

3. The Company may use newly-issued shares of its Common Stock or purchase shares in the open market in connection with the implementation of the plan. The number of shares to be issued to a stockholder shall be based on share price equal to 95% of the closing price of the Company s Common Stock one day prior to the dividend payment date.

4. The Board may, in its sole discretion, instruct the Company to purchase shares of its Common Stock in the open market in connection with the implementation of the Plan as follows: If the Company s Common Stock is trading below net asset value at the time of valuation, upon notice from the Company, the Plan Administrator (as defined below) will receive the dividend or distribution in cash and will purchase Common Stock in the open market, on the New York Stock Exchange or elsewhere, for the Participants accounts, except that the Plan Administrator will endeavor to terminate purchases in the open market and cause the Company to issue the remaining shares if, following the commencement of the purchases, the market value of the shares, including brokerage commissions, exceeds the net asset value at the time of valuation. These remaining shares will be issued by the Company at a price equal to the greater of (i) the net asset value at the time of valuation or (ii) 95% of the then current market price.

5. In a case where the Plan Administrator has terminated open market purchases and caused the issuance of remaining shares by the Company, the number of shares received by the participant in respect of the cash dividend or distribution will be based on the weighted average of prices paid for shares purchased in the open market, including brokerage commissions, and the price at which the Company issues the remaining shares. To the extent that the Plan Administrator is unable to terminate purchases in the open market before the Plan Administrator has completed its purchases, or remaining shares cannot be issued by the Company because the Company declared a dividend or distribution payable only in cash, and the market price exceeds the net asset value of the shares, the average share purchase price paid by the Plan Administrator may exceed the net asset value of the shares, resulting in the acquisition of fewer shares than if the dividend or distribution had been paid in shares issued by the Company.

6. A stockholder may, however, elect to receive his or its distributions in cash. To exercise this option, such stockholder shall notify American Stock Transfer & Trust Company, the plan administrator and the Company s transfer agent and registrar (collectively the Plan Administrator), in writing so that such notice is received by the Plan Administrator no later than the record date fixed by the Board for the distribution involved.

7. The Plan Administrator will set up an account for shares acquired pursuant to the Plan for each stockholder who has not so elected to receive dividends and distributions in cash (each, a Participant). The Plan Administrator may hold each Participant s shares, together with the shares of other Participants, in non-certificated form in the Plan Administrator s name or that of its nominee. Upon request by a Participant, received no later than three (3) days prior to the payable date, the Plan Administrator will, instead of crediting shares to and/or carrying shares in a Participant s account, issue, without charge to the Participant, a certificate registered in the Participant s name for the number of whole shares payable to the Participant

KAYNE ANDERSON MLP INVESTMENT COMPANY

DIVIDEND REINVESTMENT PLAN

(UNAUDITED)

and a check for any fractional share less a broker commission on the sale of such fractional shares. If a request to terminate a Participant s participation in the Plan is received less than three (3) days before the payable date, dividends and distributions for that payable date will be reinvested. However, subsequent dividends and distributions will be paid to the Participant in cash.

8. The Plan Administrator will confirm to each Participant each acquisition made pursuant to the Plan as soon as practicable but not later than ten (10) business days after the date thereof. Although each Participant may from time to time have an undivided fractional interest (computed to three decimal places) in a share of Common Stock of the Company, no certificates for a fractional share will be issued. However, dividends and distributions on fractional shares will be credited to each Participant s account. In the event of termination of a Participant s account under the Plan, the Plan Administrator will adjust for any such undivided fractional interest in cash at the market value of the Company s shares at the time of termination.

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

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

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

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

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

KAYNE ANDERSON MLP INVESTMENT COMPANY

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(UNAUDITED)

Company held in the Participant s name or under the Plan for retention or application by such successor agent as provided in these terms and conditions.

14. The Plan Administrator will at all times act in good faith and use its best efforts within reasonable limits to ensure its full and timely performance of all services to be performed by it under this Plan and to comply with applicable law, but assumes no responsibility and shall not be liable for loss or damage due to errors unless such error is caused by the Plan Administrator s negligence, bad faith, or willful misconduct or that of its employees or agents.

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

Adopted: September 27, 2004

Amended: December 13, 2005

Amended: March 12, 2009

KAYNE ANDERSON MLP INVESTMENT COMPANY

INVESTMENT MANAGEMENT AGREEMENT APPROVAL DISCLOSURE

(UNAUDITED)

The Company s Board of Directors (the Board) on March 30, 2017 approved the continuation of the Company s Investment Management Agreement (the Agreement) with KA Fund Advisors, LLC (the Adviser) through March 31, 2018.

During the course of each year and in connection with their consideration of the continuation of the Agreement, the Board received various materials from the Adviser, including (i) information on the advisory personnel of the Adviser; (ii) information on the internal compliance procedures of the Adviser; (iii) comparative information showing how the Company s fees and expenses compare to other registered investment companies that follow investment strategies similar to those of the Company; (iv) information regarding brokerage and portfolio transactions; (vi) comparative information showing how the Company s performance compares to other registered investment companies that follow investment strategies similar to those of the Company; and (vii) information on any material legal proceedings or regulatory audits or investigations affecting the Company or the Adviser.

After receiving and reviewing these materials, the Board, at an in-person meeting called for such purpose (the Meeting), discussed the terms of the Agreement. Representatives from the Adviser attended the Meeting and presented additional oral and written information to the Board to assist in its considerations. The Directors who are not parties to the Agreement or interested persons (as defined in the Investment Company Act of 1940, as amended) of any such party (the Independent Directors) also met in executive session to further discuss the terms of the Agreement and the information provided by the Adviser.

Discussed below are certain of the factors considered by the Board in continuing the Agreement. This discussion is not intended to be all-inclusive. The Board, including the Independent Directors, reviewed a variety of factors and considered a significant amount of information, including information received on an ongoing basis at Board and committee meetings and in various discussions with senior management of the Adviser relating specifically to the Adviser and the Agreement. The approval determination was made on the basis of each Director s business judgment after consideration of all the information taken as a whole. Individual Directors may have given different weight to certain factors and assigned various degrees of materiality to information received in connection with the contract review process.

Taking all of the information and deliberations into account, the Independent Directors reviewed various factors presented to them, the detailed information provided by the Adviser at the Meeting and at other times throughout the year, and other relevant information and the following factors, none of which was dispositive in their decision whether to approve the Agreement:

The nature, extent, and quality of the services to be provided by the Adviser

The Board, including the Independent Directors, considered the scope and quality of services that have been provided by the Adviser under the Agreement. The Board, including the Independent Directors, considered the quality of the investment research capabilities of the Adviser and the other resources the Adviser has dedicated to performing services for the Company, including the high caliber of portfolio managers and research analysts involved, the large and experienced team of investment, accounting, legal, trading and compliance professionals at the Adviser dedicated to the Company, and the continued maintenance and growth of such team despite the recent decline in the energy sector and an associated reduction in management fees received by the Adviser. The Board, including the Independent Directors, also considered the quality of other services, including the Adviser s assistance in the coordination of the activities of some of the Company s other service providers, the provision of certain administrative, compliance, reporting and financial services by the Adviser, the prudent use of call options, the responsible handling of the Company s leverage ratios and distribution determinations through declining and volatile energy markets, and the efforts to maximize returns and to position the Company s portfolio to grow as those markets recover. The Board, including the Independent Directors, took note of the Adviser s excellent track records in identifying and executing on key investment themes and in sourcing and

KAYNE ANDERSON MLP INVESTMENT COMPANY

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(UNAUDITED)

negotiating private investments for the Company as well as the Company s access to investments and capital markets due in part to the Adviser s credibility with institutional investors. The Board, including the Independent Directors, also considered the nature and quality of the services provided by the Adviser to the Company in light of their experience as Directors of the Company, their confidence in the Adviser s integrity and competence gained from that experience and the Adviser s responsiveness to questions, concerns or requests for information raised or made by them in the past. The Board, including the Independent Directors, noted the high quality of services provided by the Adviser during periods when the market faces significant turmoil, including various current market challenges, as well as the Adviser s efforts to maximize returns and its leadership position in the markets in which it invests. The Board, including the Independent Directors, discussed the scope of responsibilities of, and resources expected to be available to, the key investment management and other personnel of the Adviser. Based on information provided by the Adviser, the Independent Directors concluded that the Adviser has the quality and depth of personnel and investment methods essential to performing its duties under the Agreement, and should be able to sustain that quality and depth, and that the nature and the proposed cost of such advisory services would be fair and reasonable in light of the services expected to be provided.

The Company s performance under the management of the Adviser

The Independent Directors reviewed information pertaining to the performance of the Company. These data compared the Company s performance to the performance of certain other registered investment companies that follow investment strategies similar to those of the Company as well as its benchmark. The comparative information showed that the performance of the Company is satisfactory on an overall basis compared to other similar closed-end funds for various periods despite certain periods of lower relative performance against applicable peer groups. Based upon their review and consideration of applicable securities price indices, the Independent Directors concluded that the Company s investment performance over time has been satisfactory compared to other closed-end funds that focus on investments in energy-related master limited partnerships (MLPs) and other energy companies, as applicable, and that the Company has generated strong returns for investors over various periods. The Independent Directors noted that in addition to the information received for the Meeting, the Independent Directors also receive detailed performance information for the Company at each regular meeting of the Board during the year. The Independent Directors considered the investment performance of other closed-end investment companies managed by the Adviser, but noted that they are not directly comparable. The Independent Directors did not consider the performance of other accounts of the Adviser because there were no accounts similar enough to be relevant for performance purposes.

The reasonability of the management fee and fall-out benefits

The Independent Directors considered the Company s management fee under the Agreement in comparison to the management fees of funds within the Company s peer group. The Independent Directors also considered the greater risks and burdens associated with managing the Company compared to private funds and separate accounts. The Adviser s successful handling of past and recent market downturns and management of related leverage and distribution challenges, the administrative burden resulting from the Company s tax complexities, the Company s participation in private investments, particularly PIPE transactions, the Adviser s long standing relationships with management teams in the energy sector, and the Adviser s track record for successful pricing and timing strategies related to capital raising for the Company were also noted by the Independent Directors as relevant considerations in evaluating the reasonableness of the management fee rate. The Independent Directors also discussed and are comfortable with the different contractual fee rates for the Company and other closed-end companies managed by the Adviser given differences in strategies and investments, and the relatively stronger and deeper management expertise and resources of the Adviser. Based on those comparisons, the Independent Directors concluded that the management fee for the Company remains reasonable.

KAYNE ANDERSON MLP INVESTMENT COMPANY

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The extent to which economies of scale would be realized as the Company grows and whether fee levels reflect these economies of scale for the benefit of stockholders

The Independent Directors considered economies of scale that are being enjoyed by stockholders of the Company. In this regard, they noted the Adviser s efforts to manage operating expenses, including significant declines in operating expenses over various periods since inception. They noted the increase in operating expenses as a percentage of net assets over the prior 12-month period and took into account the Adviser s discussion of that increase, including the impact of the decline in the Company s assets during the market downturn. They further noted that the Adviser added professionals to its already robust and high-quality team, which also represented a sharing of those economies of scale. The Independent Directors also considered further possible economies of scale that the Adviser could achieve in its management of the Company. They considered the information provided by the Adviser relating to the Company s operating expenses and information comparing the fee rate charged by the Adviser with fee rates charged by other unaffiliated investment advisers to their investment company clients. They also noted that beginning on October 1, 2012 with respect to the Company, the Adviser agreed to a breakpoint under the existing fee structure through an annual fee waiver agreement, and that the Adviser agreed to additional breakpoints that became effective December 11, 2014. The Independent Directors noted that the additional breakpoints would result in further reduction in the effective average fee rate as the Company grows. The Independent Directors also considered the Adviser s commitment to retaining and growing its professional staff in a competitive environment for investment and compliance professionals, and in light of reduced management revenues from weaker energy markets. The Independent Directors concluded that the fee structure for the Company is reasonable in view of the information provided by the Adviser, including the breakpoints in place for the Company, which represent a sharing of the economies of scale that would result from substantial future growth of the Company. The Independent Directors then noted that they would continue to monitor and review further growth of the Company in order to remain comfortable with the fee structure after any applicable future economies of scale.

Conclusion

Based on the review of the Board, including its consideration of each of the factors discussed above and the materials requested from and provided by the Adviser, the Board concluded, in agreement with the recommendation of the Independent Directors, that the Company and its stockholders received reasonable value in return for the management fees and other amounts paid to the Adviser by the Company under the Agreement, that stockholders could expect to receive reasonable value in return for the management fees and other amounts proposed to be paid to the Adviser by the Company under the Agreement and that the approval of the continuation of the Agreement was in the best interests of stockholders of the Company.

KAYNE ANDERSON MLP INVESTMENT COMPANY

INFORMATION REGARDING CHANGES TO INVESTMENT POLICY

(UNAUDITED)

On April 20, 2017, the Company s Board of Directors approved the following change to its non-fundamental investment policy related to the use of leverage:

The prior policy allowed for the Company to utilize borrowings and preferred stock (each a Leverage Instrument and collectively Leverage Instruments) in an amount that represented approximately 30% of total assets, including proceeds from such Leverage Instruments. The revised policy has established target leverage levels of approximately 25-30% of total assets, including proceeds from such Leverage Instruments.

The revised policy will be effective June 30, 2017, as follows:

Under normal market conditions, the Company s policy is to utilize borrowings and preferred stock (each a Leverage Instrument and collectively Leverage Instruments) in an amount that represents approximately 25%-30% of total assets (the target leverage levels), including proceeds from such Leverage Instruments. However, the Company reserves the right at any time, based on market conditions, (i) to reduce the target leverage levels or (ii) to use Leverage Instruments to the extent permitted by the 1940 Act.

PROXY VOTING AND PORTFOLIO HOLDINGS INFORMATION

(UNAUDITED)

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

- without charge, upon request, by calling (877) 657-3863/MLP-FUND;
- on the Company s website, *http://www.kaynefunds.com*; and
- on the SEC s website, *http://www.sec.gov*.

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

The Company files a complete schedule of its portfolio holdings for the first and third quarters of each of its fiscal years with the SEC on Form N-Q and Form N-30B-2. The Company s Form N-Q and Form N-30B-2 are available on the SEC s website at *http://www.sec.gov* and may be reviewed and copied at the SEC s Public Reference Room in Washington, DC. Information on the operation of the SEC s Public Reference Room may be obtained by calling 1-800-SEC-0330. The Company also makes its Form N-Q and Form N-30B-2 available on its website at *http://www.kaynefunds.com.*

REPURCHASE DISCLOSURE

(UNAUDITED)

Notice is hereby given in accordance with Section 23(c) of the 1940 Act, that the Company may from time to time purchase shares of its common and preferred stock and its Notes in the open market or in privately negotiated transactions.

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KAYNE ANDERSON MLP INVESTMENT COMPANY

RESULTS OF ANNUAL MEETING OF STOCKHOLDERS

(UNAUDITED)

On June 29, 2017, the Company held its annual meeting of stockholders where the following matters were approved by stockholders. As of the record date of May 17, 2017 (the Record Date), the Company had 114,279,700 outstanding shares of common stock and 11,680,000 outstanding shares of mandatory redeemable preferred stock, each of which was entitled to cast one vote. Represented in person or by proxy at this meeting were a total of 111,075,675 shares of common stock and mandatory redeemable preferred stock, constituting a quorum.

(i) The ratification of PricewaterhouseCoopers LLP as the Company s independent registered public accounting firm for the fiscal year ending November 30, 2017.

Approval of this proposal required the affirmative vote of a majority of the votes cast by the holders of the Company s common stock and mandatory redeemable preferred stock outstanding as of the Record Date, voting together as a single class. For purposes of the vote on this proposal, abstentions and broker non-votes will not be counted as votes cast and will have no effect on the result of the vote.

On this matter, 109,433,464 shares were cast in favor, 1,316,966 shares were cast against, 325,245 shares abstained, and there were no broker non-votes.

As a result of the vote on this matter, the proposal was approved.

Directors and Corporate Officers

Kevin S. McCarthy	Chairman of the Board of Directors and Chief Executive Officer
Anne K. Costin	Director
Steven C. Good	Director
William H. Shea, Jr.	Director
James C. Baker	President
Terry A. Hart	Chief Financial Officer and Treasurer
David J. Shladovsky	Secretary
Michael J. O Neil	Chief Compliance Officer
J.C. Frey	Executive Vice President, Assistant Secretary and Assistant Treasurer
Ron M. Logan, Jr.	Senior Vice President
Jody C. Meraz	Vice President

Investment Adviser
KA Fund Advisors, LLC
811 Main Street, 14th Floor
Houston, TX 77002

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

Administrator
Ultimus Fund Solutions, LLC
225 Pictoria Drive, Suite 450
Cincinnati, OH 45246

Stock Transfer Agent and Registrar
American Stock Transfer & Trust Company, LLC
6201 15th Avenue
Brooklyn, NY 11219

(888) 888-0317

Custodian
JPMorgan Chase Bank, N.A.
14201 North Dallas Parkway, Second Floor
Dallas, TX 75254

Independent Registered Public Accounting Firm
PricewaterhouseCoopers LLP
601 S. Figueroa Street, Suite 900
Los Angeles, CA 90017

Legal Counsel
Paul Hastings LLP
101 California Street, Forty-Eighth Floor
San Francisco, CA 94111

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

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

Item 2. Code of Ethics.

Not applicable.

Item 3. Audit Committee Financial Expert.

Not applicable.

Item 4. Principal Accountant Fees and Services.

Not applicable.

Item 5. Audit Committee of Listed Registrants.

Not applicable.

Item 6. Investments.

(a) Please see the schedule of investments contained in the KYN Semi-Annual Report for the six months ended May 31, 2017 included under Item 1 of this Form N-CSR.

(b) Not applicable.

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

Not applicable.

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

Not applicable.

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

None.

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

None.

Item 11. Controls and Procedures.

(a) The Registrant s principal executive officer and principal financial officer have evaluated the Registrant s disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940, as amended (the 1940 Act)), as of a date within 90 days of the filing date of this report and have concluded that the Registrant s disclosure controls and procedures are effective, as of such date, based on the evaluation of these controls and procedures required by Rule 30a-3(b) under the 1940 Act and Rule 13a-15(b) or 15d-15(b) under the Securities Exchange Act of 1934, as amended.

(b) There were no changes in the Registrant s internal control over financial reporting (as defined in Rule 30a-3(d) under the 1940 Act) that occurred during the second fiscal quarter of the period covered by this report that have materially affected, or are reasonably likely to materially affect, the Registrant s internal control over financial reporting.

Item 12. Exhibits.

(a)(1) Not applicable to semi-annual reports.

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

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

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

KAYNE ANDERSON MLP INVESTMENT

COMPANY

Date: July 27, 2017

By: /s/ KEVIN S. MCCARTHY
Kevin S. McCarthy
Chairman of the Board of Directors and Chief Executive Officer

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

Date: July 27, 2017

By: /s/ KEVIN S. MCCARTHY
Kevin S. McCarthy
Chairman of the Board of Directors and Chief Executive Officer

Date: July 27, 2017

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

Exhibit Index

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