Kayne Anderson MLP/Midstream Investment Co
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October 30, 2018

MLP/Midstream Investment Company

KYN Quarterly Report

August 31, 2018

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS: This report of Kayne Anderson MLP/Midstream 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 historical in nature. Forward-looking statements are subject to certain risks and uncertainties that could cause actual results to materially differ from the Company s historical experience and its present expectations or projections indicated in any forward-looking statements. These risks include, but are not limited to, changes in economic and political conditions; regulatory and legal changes; master limited partnership (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/MIDSTREAM INVESTMENT COMPANY

MANAGEMENT DISCUSSION

(UNAUDITED)

Company Overview

Kayne Anderson MLP/Midstream Investment Company (KYN) 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 August 31, 2018, we had total assets of $4.0 billion, net assets applicable to our common stockholders of $2.5 billion (net asset value (NAV) of $19.43 per share), and 126.1 million shares of common stock outstanding.

Our investments are principally in equity securities issued by MLPs and other Midstream Energy Companies, but we also may invest in debt securities of MLPs and other Midstream Energy Companies. As of August 31, 2018, we held $4.0 billion in equity investments and no debt investments.

Recent Events

Merger with Kayne Anderson Energy Development Company

On August 6, 2018, we completed our merger with Kayne Anderson Energy Development Company (KED). Pursuant to the terms of the merger agreement approved by stockholders of KED, we acquired all of the net assets of KED ($208 million) in exchange for an equal net asset value of newly issued KYN common stock (10.4 million shares). The merger qualified as a tax-free reorganization under Section 368(a) of the Internal Revenue Code. Immediately following the merger, our combined total assets and net assets were $4.1 billion and $2.5 billion, respectively.

Conversion to Monthly Distributions

We previously announced our intention to adopt a monthly distribution after the closing of our merger with KED. The distribution paid in September was the first monthly distribution under this new policy. Going forward, the Board of Directors intends to declare three monthly distributions during the month following its fiscal quarter end. 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.

KYN s Name Change

On July 30, 2018, our name changed from Kayne Anderson MLP Investment Company to Kayne Anderson MLP/Midstream Investment Company. We believe this change is consistent with recent trends in the midstream sector, with an increasing amount of midstream assets being held by Midstream Energy Companies that are not structured as MLPs.

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Our Top Ten Portfolio Investments

Listed below are our top ten portfolio investments by issuer as of August 31, 2018.

	Holding	Category	Amount ($ in millions)	Percent of Long-Term Investments
1.	Enterprise Products Partners L.P.	Midstream MLP	$ 526.7	13.2%
2.	Energy Transfer Partners, L.P.(1)	Midstream MLP	430.6	10.8
3.	The Williams Companies, Inc.	Midstream Company	334.2	8.4
4.	ONEOK, Inc.	Midstream Company	325.4	8.2
5.	MPLX LP	Midstream MLP	271.5	6.8
6.	Plains All American Pipeline, L.P.(2)	Midstream MLP	225.0	5.6
7.	Western Gas Partners, LP	Midstream MLP	218.4	5.5
8.	Buckeye Partners, L.P.	Midstream MLP	212.5	5.3
9.	Targa Resources Corp.	Midstream Company	211.7	5.3
10.	Magellan Midstream Partners, L.P.	Midstream MLP	141.6	3.6
			$ 2,897.6	72.7%

(1) On October 19, 2018, Energy Transfer Equity, L.P. (ETE) and Energy Transfer Partners, L.P. (ETP) completed their previously announced unit-for-unit merger, in which ETE acquired ETP. Upon closing of the merger, ETE changed its name to Energy Transfer LP. As of August 31, 2018, we held $21.4 million of ETE common units. On a combined basis our holdings in ETP and ETE was 11.3% of long-term investments as of August 31, 2018.

(2) Does not include our ownership of Plains GP Holdings, L.P. (PAGP) and Plains AAP, L.P. (PAGP-AAP), which are affiliates. As of August 31, 2018, we held $1.8 million and $42.4 million of PAGP common shares and PAGP-AAP partnership units, respectively. On a combined basis our holdings in Plains All American Pipeline, L.P., PAGP and PAGP-AAP was 6.8% of long-term investments as of August 31, 2018.

Results of Operations For the Three Months Ended August 31, 2018

Investment Income. Investment income totaled $7.2 million for the quarter. We received $63.9 million of dividends and distributions, of which $51.6 million was treated as return of capital and $5.1 million was treated as distributions in excess of cost basis. We also received $4.0 million of paid-in-kind dividends during the quarter, which are not included in investment income, but are reflected as unrealized gains.

Operating Expenses. Operating expenses totaled $24.1 million, including $13.0 million of investment management fees, $7.0 million of interest expense, $3.1 million of preferred stock distributions and $1.0 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. Other operating expenses include $0.2 million of merger related expenses.

Net Investment Loss. Our net investment loss totaled $12.9 million and included a current tax benefit of $19.9 million and a deferred tax expense of $15.9 million.

Net Realized Gains. We had net realized gains from our investments of $86.9 million, consisting of realized gains from long term investments of $116.6 million, a current tax expense of $93.2 million and a deferred tax benefit of $63.5 million.

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Net Change in Unrealized Gains. We had a net increase in our unrealized gains of $57.6 million. The net change consisted of an $76.2 million increase in unrealized gains on investments and a deferred tax expense of $18.6 million.

Net Increase in Net Assets Resulting from Operations. We had an increase in net assets resulting from operations of $131.6 million. This increase was comprised of a net investment loss of $12.9 million, net realized gains of $86.9 million and a net increase in unrealized gains of $57.6 million, as noted above.

Distributions to Common Stockholders

Our distributions are 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.

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 August 31, 2018	Pro Forma[1] Three Months Ended August 31, 2018
Distributions and Other Income from Investments		
Dividends and Distributions[2]	$ 63.9	$ 68.5
Paid-In-Kind Dividends[2]	4.0	4.0
Total Distributions and Other Income from Investments	67.9	72.5
Expenses		
Net Investment Management Fee	(13.0)	(13.7)
Other Expenses[3]	(0.8)	(0.9)
Interest Expense	(6.8)	(7.2)
Preferred Stock Distributions	(2.9)	(3.0)
Income Tax Benefit, net	4.0	4.2
Net Distributable Income (NDI)	**$ 48.4**	**$ 51.9**
Weighted Shares Outstanding[4]	118.5	126.0
NDI per Weighted Share Outstanding	**$ 0.41**	**$ 0.41**

Adjusted NDI per Weighted Share Outstanding[5]	**$**	**0.41**	**$**	**0.42**
Distributions per Common Share[6]	**$**	**0.45**	**$**	**0.45**

(1) Pro Forma NDI includes amounts from KED for the period of June 1, 2018 through August 3, 2018 (valuation date of the merger).

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

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(3) Excludes $0.2 million of one-time merger related expenses.

(4) Weighted shares outstanding for the quarter reflects 10.4 million of new KYN shares issued August 6, 2018 in connection with our merger with KED. For Pro Forma NDI, weighted shares outstanding assumes all shares issued to KED stockholders in connection with the merger were issued and outstanding for the entire period.

(5) The income tax benefit for the second quarter of fiscal 2018 included a $1.6 million increase attributable to a change made to our return of capital estimate for 2017 (the Return of Capital Adjustment) as a result of tax reporting information related to 2017 received during fiscal 2018. For purposes of calculating Adjusted NDI, we allocated the income tax benefit related to our Return of Capital Adjustment equally to each quarter in 2018 ($1.6 million adjustment in aggregate; $0.4 million quarterly adjustment).

(6) Monthly distribution of $0.15 per share paid, or to be paid, September 28, 2018, October 31, 2018 and November 30, 2018.

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 distributions are funded primarily by NDI generated from our portfolio investments, the Board of Directors, in determining our 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.

In connection with our merger with KED, we provided distribution guidance of $1.80 per share for the twelve months ending February 28, 2019, and we remain committed to this distribution guidance. At the end of this twelve-month period, the Board of Directors will reassess our distribution with the goal of establishing a distribution that is based on long-term, sustainable NDI.

During fiscal 2018, seven MLPs held in our portfolio have either completed or announced mergers with their general partners. Each of these simplification transactions has resulted in the unitholders of the MLP receiving a lower distribution after the transaction is completed, which in turn reduces our NDI. These simplification transactions are part of an industry trend of simplifying ownership structures and eliminating MLPs incentive distribution rights. Kayne Anderson expects this trend to continue and believes that it is likely that additional simplification transactions will be announced during the next twelve months. Additionally, one MLP in our portfolio is expected to reduce its distribution in the next three months, which will reduce our NDI.

Our Board of Directors plans to reassess our distribution in early 2019. Currently, our NDI is below our annualized distribution of $1.80 per share. Additionally, our current projection of NDI for the next 12 to 24 months is below our distribution. As a result, it is likely that management will recommend a distribution in early 2019 that is below our current distribution.

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.

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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.

For GAAP purposes, offering costs incurred related to the issuance of common stock reduce paid-in capital when stock is issued. Certain costs related to registration statements or shelf offerings may be written off once the registration statement or prospectus usefulness has expired. The non-cash amortization or write-off of these offering costs is included in operating expense 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.

Liquidity and Capital Resources

At August 31, 2018, we had total leverage outstanding of $1,150 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 $716 million of Notes, $38 million of borrowings outstanding under our unsecured revolving credit facility (the Credit Facility), $19 million of borrowings

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outstanding under our unsecured revolving term loan (the Revolving Term Loan), $60 million outstanding under our unsecured term loan (the Term Loan) and $317 million of MRP Shares. At August 31, 2018, we had $2 million of cash and cash equivalents. As of October 26, 2018, we had total leverage outstanding of $1,176 million, which represented 32% of total assets. As of this date, we had $83 million of borrowings outstanding under our Credit Facility, $60 million outstanding under our Term Loan, and we had $2 million of cash and cash equivalents.

Our Credit Facility has a 364-day term, maturing on February 15, 2019 and a total commitment amount of $150 million. The interest rate on outstanding loan balances may vary between LIBOR plus 1.30% and LIBOR plus 1.95%, depending on our asset coverage ratios. We pay a fee of 0.20% per annum on any unused amounts of the Credit Facility.

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

In connection with our merger with KED, we assumed KED s $60 million Term Loan. The Term Loan matures on August 11, 2021. The interest rate on $30 million of the Term Loan is fixed at a rate of 3.06% and the interest rate on the remaining $30 million is LIBOR plus 1.50%. Amounts repaid under the Term Loan cannot be reborrowed.

At August 31, 2018, we had $716 million of Notes outstanding that mature between 2019 and 2025 and we had $317 million of MRP Shares outstanding that are subject to mandatory redemption between 2020 and 2022. As a part of the merger, KED preferred stockholders were issued an equivalent number of new KYN Series K MRP Shares ($25 million liquidation value) with terms identical to their previously held KED Series A MRP Shares. Series K MRP Shares pay quarterly dividends at a rate of 3.37% per annum and mature on April 10, 2020.

At August 31, 2018, our asset coverage ratios under the Investment Company Act of 1940, as amended (the 1940 Act), were 432% for debt and 313% for total leverage (debt plus preferred stock). Our target asset coverage ratio with respect to our debt is 400%. 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 300% and the basic maintenance amount as stated in our rating agency guidelines.

As of August 31, 2018, our total leverage consisted 92% of fixed rate obligations and 8% of floating rate obligations. At such date, the weighted average interest/dividend rate on our total leverage was 3.58%.

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SCHEDULE OF INVESTMENTS

AUGUST 31, 2018

(amounts in 000 s)

(UNAUDITED)

Description	No. of Shares/Units	Value
Long-Term Investments 162.7%		
Equity Investments[(1)] 162.7%		
Midstream MLP[(2)] 118.5%		
Andeavor Logistics LP	919	$ 44,651
Antero Midstream Partners LP[(3)]	367	10,736
BP Midstream Partners LP	2,556	50,430
Buckeye Partners, L.P.[(4)]	3,662	129,117
Buckeye Partners, L.P. Class C Units[(4)(5)(6)(7)]	2,610	83,375
CNX Midstream Partners LP	770	15,090
Cheniere Energy Partners, L.P.	1,448	54,871
Crestwood Equity Partners LP	1,474	55,404
DCP Midstream, LP	2,905	119,714
Dominion Midstream Partners, LP Convertible Preferred Units[(5)(6)(8)]	631	13,664
Enable Midstream Partners, LP	1,470	22,888
Enbridge Energy Management, L.L.C.[(9)(10)]	2,475	26,857
Enbridge Energy Partners, L.P[(10)]	1,546	17,408
Energy Transfer Partners, L.P.[(11)]	19,095	430,589
EnLink Midstream Partners, LP	4,888	87,006
Enterprise Products Partners L.P.	18,416	526,701
EQT Midstream Partners, LP	475	27,153
Global Partners LP	1,166	21,752
Hess Midstream Partners LP	40	908
Magellan Midstream Partners, L.P.	2,074	141,567
MPLX LP	5,165	183,193
MPLX LP Convertible Preferred Units[(5)(6)(12)]	2,255	88,276
Noble Midstream Partners LP	280	12,257
Phillips 66 Partners LP	701	36,066
Plains All American Pipeline, L.P.[(4)]	8,613	224,963
Plains GP Holdings, L.P.[(4)]	70	1,805
Plains GP Holdings, L.P. Plains AAP, L.P.[(4)(6)(13)]	1,622	42,374
Shell Midstream Partners, L.P.	4,898	109,562
Spectra Energy Partners, LP[(10)]	1,487	56,462
Sprague Resources LP	683	17,268
Summit Midstream Partners, LP	2,060	33,270
Western Gas Partners, LP	4,471	218,418
		2,903,795
Midstream Company 41.1%		
Antero Midstream GP LP[(3)]	246	4,155
Kinder Morgan, Inc.	1,445	25,575
ONEOK, Inc.	4,936	325,359
SemGroup Corporation		