KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

Form N-30B-2 October 30, 2017 Table of Contents

Midstream/Energy Fund

KMF Quarterly Report

August 31, 2017

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS: This report of Kayne Anderson Midstream/Energy Fund, Inc. (the Fund) 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 his in nature. Forward-looking statements are subject to certain risks and uncertainties that could cause actual results to materially differ from the Fund s historical experience and its present expectations or projections indicated in any forward-looking statement. These risks include, but are not limited to, changes in economic and political conditions; regulatory and legal changes; MLP industry risk; leverage risk; valuation risk; interest rate risk; tax risk; and other risks discussed in the Fund 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 Fund undertakes no obligation to publicly update or revise any forward-looking statements made herein. There is no assurance that the Fund s investment objectives will be attained.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

MANAGEMENT DISCUSSION

(UNAUDITED)

Fund Overview

Kayne Anderson Midstream/Energy Fund, Inc. is a non-diversified, closed-end fund. We commenced operations on November 24, 2010. Our shares of common stock are listed on the New York Stock Exchange under the symbol KMF.

Our investment objective is to provide a high level of total return with an emphasis on making quarterly cash distributions to our stockholders. We seek to achieve that investment objective by investing at least 80% of our total assets in the securities of companies in the Midstream/Energy Sector, consisting of (a) Midstream MLPs, (b) Midstream Companies, (c) Other MLPs and (d) Other Energy Companies. We anticipate that the majority of our investments will consist of investments in Midstream MLPs and Midstream Companies. Please see the Glossary of Key Terms for a description of these investment categories and for the meaning of capitalized terms not otherwise defined herein.

As of August 31, 2017, we had total assets of \$474 million, net assets applicable to our common stockholders of \$333 million (net asset value of \$15.12 per share), and 22.0 million shares of common stock outstanding. As of August 31, 2017, we held \$414 million in equity investments and \$54 million in debt investments.

Our Top Ten Portfolio Investments

Listed below are our top ten portfolio investments by issuer as of August 31, 2017.

| Holding | $Category^{(1)}$ | Amount (\$ in millions) | Percent of Long-Term Investments |
|--|-------------------|-------------------------|--|
| 1. ONEOK, Inc. | Midstream Company | \$38.0 | 8.1% |
| 2. Plains GP Holdings, L.P. ⁽²⁾ | Midstream MLP | 31.3 | 6.7 |
| 3. Enbridge Energy Management, L.L.C. | Midstream MLP | 27.1 | 5.8 |
| 4. The Williams Companies, Inc. | Midstream Company | 26.8 | 5.7 |
| 5. Targa Resources Corp. | Midstream Company | 22.6 | 4.8 |
| 6. Energy Transfer Partners, L.P. | Midstream MLP | 19.1 | 4.1 |
| 7. Enbridge, Inc. | Midstream Company | 19.1 | 4.1 |
| 8. KNOT Offshore Partners LP | Midstream Company | 18.9 | 4.0 |
| 9. GasLog Partners LP | Midstream Company | 16.8 | 3.6 |
| 10. Golar LNG Partners LP | Midstream Company | 16.5 | 3.5 |
| | | | |
| | | \$ 236.2 | 50.4% |

⁽¹⁾ See Glossary of Key Terms for definitions.

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

⁽²⁾ Our investment includes our holdings of Plains GP Holdings, L.P. (PAGP) and our interest in Plains AAP, L.P. (PAGP-AAP). Our ownership of PAGP-AAP is exchangeable on a one-for-one basis into either PAGP shares or Plains All American Pipeline, L.P. units at our option.

Investment Income. Investment income totaled \$4.8 million for the quarter and consisted primarily of net dividends and distributions and interest income on our investments. We received \$7.5 million of dividends and distributions, of which \$4.5 million was treated as return of capital. Interest income was \$1.8 million. We also received \$0.6 million of paid-in-kind dividends during the quarter, which are not included in investment income, but are reflected as an unrealized gain.

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Operating Expenses. Operating expenses totaled \$3.4 million, including \$1.5 million of investment management fees, \$1.1 million of interest expense, \$0.4 million of preferred stock distributions and \$0.4 million of other operating expenses. Interest expense includes \$0.1 million of non-cash amortization of debt issuance costs.

Net Investment Income. Our net investment income totaled \$1.4 million.

Net Realized Gains. We had net realized gains of \$5.5 million, which included \$0.2 million of net realized gains from option activity.

Net Change in Unrealized Gains. We had a net decrease in unrealized gains of \$11.8 million. The net decrease consisted of \$11.8 million of unrealized losses from investments.

Net Decrease in Net Assets Resulting from Operations. We had a decrease in net assets resulting from operations of \$4.9 million. This decrease was comprised of net investment income of \$1.4 million, net realized gains of \$5.5 million and a net decrease in unrealized gains of \$11.8 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.

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) accrual for estimated excise taxes (if any) and (d) interest expense and preferred stock distributions.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

MANAGEMENT DISCUSSION

(UNAUDITED)

Net Distributable Income (NDI)

(amounts in millions, except for per share amounts)

| | Au | e Months Ended gust 31, 2017 |
|--|----|---------------------------------------|
| Distributions and Other Income from Investments | | |
| Dividends ⁽¹⁾ | \$ | 7.5 |
| Paid-In-Kind Dividends ⁽¹⁾ | | 0.6 |
| Interest Income | | 1.9 |
| Net Premiums Received from Call Options Written | | 0.2 |
| | | |
| Total Distributions and Other Income from Investments | | 10.2 |
| Expenses | | |
| Investment Management Fee | | (1.5) |
| Other Expenses | | (0.4) |
| Interest Expense | | (1.0) |
| Preferred Stock Distributions | | (0.4) |
| Net Distributable Income (NDI) | \$ | 6.9 |
| Weighted Shares Outstanding | | 22.0 |
| NDI per Weighted Share Outstanding | \$ | 0.315 |
| Adjusted NDI per Weighted Share Outstanding ⁽²⁾ | \$ | 0.319 |
| Distributions paid per Common Share ⁽³⁾ | \$ | 0.300 |

- (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 \$0.1 million of consideration received in the MarkWest Energy Partners, L.P. and MPLX LP merger that was intended to offset lower quarterly distributions as a result of the transaction. 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 \$0.30 per share for the third quarter of fiscal 2017 was paid on October 13, 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.

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.

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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.

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

Under GAAP, excise taxes are accrued when probable and estimable. For NDI, we exclude excise tax that is unrelated to the current fiscal period.

Liquidity and Capital Resources

At August 31, 2017, we had total leverage outstanding of \$137 million, which represented 29% of total assets. At quarter end, total leverage was comprised of \$91 million of Notes, \$11 million of borrowings outstanding under our unsecured revolving term loan (the Term Loan) and \$35 million of MRP Shares. At August 31, 2017, we did not have any borrowings outstanding under our unsecured revolving credit facility (the Credit Facility), and we had \$2 million of cash and cash equivalents. As of October 20, 2017, we had \$19 million borrowed under our Term

Loan, we had no borrowings under our Credit Facility and we had \$3 million of cash and cash equivalents.

Our Credit Facility has a total commitment of \$75 million and matures on November 9, 2018. 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.

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MANAGEMENT DISCUSSION

(UNAUDITED)

Our Term Loan has a total commitment of \$35 million and matures on July 25, 2019. Borrowings under the Term Loan have an interest rate of LIBOR plus 1.50%. Amounts borrowed under the Term Loan may be repaid and subsequently borrowed. We pay a fee of 0.25% per annum on any unused amount of the Term Loan.

At August 31, 2017, we had \$91 million of Notes outstanding that mature between 2021 and 2023 and we had \$35 million of MRP Shares outstanding that are subject to mandatory redemption in 2021.

At August 31, 2017, our asset coverage ratios under the Investment Company Act of 1940, as amended (the 1940 Act), were 461% for debt and 343% for total leverage (debt plus preferred stock). Our target asset coverage ratio with respect to our debt is 430%. 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 320% and the basic maintenance amount as stated in our rating agency guidelines.

As of August 31, 2017, our total leverage consisted of both fixed rate (92%) and floating rate (8%) obligations. At such date, the weighted average interest/dividend rate on our total leverage was 3.81%.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

SCHEDULE OF INVESTMENTS

AUGUST 31, 2017

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

(UNAUDITED)

| | No. of | |
|---|--------------|----------|
| Description | Shares/Units | Value |
| Long-Term Investments 140.5% | | |
| Equity Investments ⁽¹⁾ 124.3% | | |
| United States 115.1% | | |
| Midstream Company ⁽²⁾ 58.1% | | |
| Capital Product Partners L.P. Class B Unit (3)(4)(5)(6) | 606 | \$ 4,624 |
| Dynagas LNG Partners LP ⁽⁵⁾ | 534 | 7,493 |
| EnLink Midstream, LLC ⁽⁵⁾ | 107 | 1,821 |
| GasLog Partners LP ⁽⁵⁾ | 740 | 16,791 |
| Golar LNG Partners LP ⁽⁵⁾ | 752 | 16,518 |
| Höegh LNG Partners LP ⁽⁵⁾ | 641 | 11,832 |
| Kinder Morgan, Inc. | 286 | 5,526 |
| Kinder Morgan, Inc. 9.75% Mandatory Convertible Preferred Stock | 61 | 2,572 |
| KNOT Offshore Partners LP ⁽⁵⁾ | 802 | 18,879 |
| ONEOK, Inc. ⁽⁷⁾ | 702 | 38,038 |
| SemGroup Corporation | 232 | 5,969 |
| Tallgrass Energy GP, LP ⁽⁵⁾ | 532 | 14,311 |
| Targa Resources Corp. | 506 | 22,563 |
| The Williams Companies, Inc. | 900 | 26,754 |
| | | |
| | | 193,691 |
| | | |
| Midstream MLP ⁽²⁾⁽⁸⁾ 52.0% | | |
| Andeavor Logistics LP | 229 | 11,378 |
| Arc Logistics Partners LP | 247 | 4,105 |
| Buckeye Partners, L.P. | 107 | 6,099 |
| Cheniere Energy Partners LP Holdings, LLC ⁽⁹⁾ | 50 | 1,257 |
| Crestwood Equity Partners LP | 147 | 3,666 |
| DCP Midstream, LP | 285 | 9,152 |
| Enbridge Energy Management, L.L.C. (9)(10) | 1,882 | 27,116 |
| Energy Transfer Partners, L.P. | 1,007 | 19,150 |
| Enterprise Products Partners L.P. (11) | 331 | 8,634 |
| EQT Midstream Partners, LP | 47 | 3,605 |
| Global Partners LP | 240 | 4,153 |
| Magellan Midstream Partners, L.P. | 45 | 3,046 |
| MPLX LP | 439 | 15,073 |
| Noble Midstream Partners LP | 35 | 1,667 |
| NuStar Energy L.P. | 72 | 2,927 |
| Phillips 66 Partners LP | 39 | 1,845 |
| Plains GP Holdings, L.P. (9)(12) | 703 | 15,793 |
| Plains GP Holdings, L.P. Plains AAP, L.P ⁶ (9)(12)(13) | 690 | 15,501 |
| Spectra Energy Partners, LP | 90 | 4,007 |
| Summit Midstream Partners, LP | 234 | 4,915 |
| Summit Allowed History DI | 23 1 | 1,713 |

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| TC PipeLines, LP | 69 | 3,641 |
|--|-----|---------|
| Western Gas Partners, LP | 124 | 6,342 |
| | | |
| | | 173,072 |
| | | |
| Other Energy Company 5.0% | | |
| Anadarko Petroleum Corporation 7.50% Tangible Equity Units ⁴⁾ | 37 | 1,354 |
| Macquarie Infrastructure Corporation | 127 | 9,451 |
| NextEra Energy Partners, LP | 25 | 1,041 |

See accompanying notes to financial statements.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

SCHEDULE OF INVESTMENTS

AUGUST 31, 2017

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

(UNAUDITED)

| Description | No. of Shares/Units | Value |
|---|------------------------|----------|
| Other Energy Company (continued) | Silai es Cines | , uluo |
| Royal Dutch Shell plc ADR Class B | 86 | \$ 4,893 |
| | | 16,739 |
| Total United States (Cost \$372,724) | | 383,502 |
| Canada 9.2% | | |
| Midstream Company ⁽²⁾ 9.2% | | |
| Enbridge Inc. | 477 | 19,083 |
| Pembina Pipeline Corporation | 179 | 5,769 |
| TransCanada Corporation | 111 | 5,614 |
| Total Canada (Cost \$26,042) | | 30,466 |
| Total Equity Investments (Cost \$398,766) | | 413,968 |

Interest Rate