

Kayne Anderson

Midstream/Energy Fund



KMF Annual Report
November 30, 2018

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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 historical 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.
ADOPTION OF AN OPTIONAL DELIVERY METHOD FOR SHAREHOLDER REPORTS

Rule 30e-3 Notice

Beginning on January 1, 2021, as permitted by regulations adopted by the Securities and Exchange Commission, paper copies of Kayne Anderson Midstream/Energy Fund, Inc.'s (the "Fund" or "KMF") annual and semi-annual shareholder reports like this one will no longer be sent by mail, unless you specifically request paper copies of the reports from the Fund or from your financial intermediary, such as a broker-dealer or bank. Instead, the reports will be made available on the Fund's website (www.kaynefunds.com), and you will be notified by mail each time a report is posted and provided with a website link to access the report.

If you already elected to receive shareholder reports electronically, you will not be affected by this change and you need not take any action. You may elect to receive shareholder reports and other communications from the Fund or your financial intermediary electronically by calling the Fund at 1-877-657-3863 or contacting your financial intermediary.

You may elect to receive all future reports in paper free of charge. You can inform the Fund or your financial intermediary that you wish to continue receiving paper copies of your shareholder reports by calling the Fund at 1-877-657-3863 or contacting your financial intermediary. Your election to receive reports in paper will apply to all funds managed by KA Fund Advisors, LLC or held with your financial intermediary.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
LETTER TO STOCKHOLDERS

January 23, 2019

Dear Fellow Stockholders:

Earlier this month, I announced that I plan to step down as CEO this summer, so this will be my final annual letter to stockholders. I am transitioning into a new role at Kayne Anderson, serving as Vice Chairman of the firm and a member of its Executive Committee. I am pleased to have served the stockholders of KMF for the last eight years and the legacy KYE stockholders for the last 14 years. While the downturn in the broader energy sector over the last four years has been challenging, I believe the Fund is currently very well positioned to execute on its business plan for many years to come — achieving high total returns by investing in MLPs, Midstream Companies and other Energy Companies.

When I think back to when I joined Kayne Anderson in 2004, it is amazing to think about how much the domestic energy sector has changed. The development of unconventional resources, or the “Shale Revolution” as we often call it, impacted the American energy industry and the broader economy in ways that were almost unimaginable 15 years ago. The most attention-grabbing statistic, arguably, is the growth in domestic crude oil production. Production has grown by more than 100% since 2004, and currently the United States produces more oil than any other country in the world. While growth in domestic production of natural gas and natural gas liquids, or NGLs, does not attract as many headlines, those statistics are equally impressive. Largely as a result of the Shale Revolution, the market backdrop today could not be more different than it was back then. In the mid-2000s, domestic production had declined for several decades and was believed to be in terminal decline. As a result, the United States had become increasingly reliant on imports to satisfy its growing demand — a trend that was expected to continue. Today, domestic production is at an all-time high (with more growth projected), and the United States now exports a growing amount of its production to the rest of the world. America has changed from being dependent on other countries to satisfy its energy needs to being one of the world’s leading suppliers of energy commodities. It has been an incredibly eventful 15-year period!

Midstream MLPs were instrumental in enabling this production growth — the Shale Revolution would not have been nearly as “revolutionary” if the MLP industry were not there to build the pipelines, terminals, processing plants, fractionators and countless other logistics assets that ensured these products flowed from the wellhead to the end user. The ingenuity and resourcefulness of the sector’s management teams to respond to this incredibly dynamic environment is impressive, as is the attractiveness of the MLP structure, which helped these companies raise the capital needed to fund this multi-decade build-out of midstream assets.

Undoubtedly, you realize that the last four years have been very challenging for the MLP space. Many MLP management teams made mistakes and took actions that caused many investors to lose confidence in the structure — as we have discussed extensively in recent annual letters. That said, as we will review in this year’s letter, tremendous progress has been made over the last few years, and today’s MLP sector is very different from the one of five years ago. We believe the sector has taken the right steps to improve its financial health and address many investor concerns. Further, we believe MLPs are attractively valued and well positioned to generate strong returns for investors.

In addition to MLPs, it is important to include Midstream Companies in any discussion involving the domestic midstream industry. As a result of many “simplification transactions” (more on this topic in a bit), an increasing amount of midstream assets are held by entities structured as taxable corporations. This is very different than the midstream landscape when we took the Fund public in late 2010. At that time, the predominant trend was to transfer midstream assets from corporations into MLPs, primarily via “drop down” transactions. Additionally, investors desired ways to get exposure to the midstream industry through owning the general partner of the MLPs, which had levered exposure to the growth in the partnership’s cash flow through the ownership of the MLP’s incentive distribution rights, or IDRs (we typically referred to these companies as “GPs”). From 2010 to 2017, there were more than ten publicly traded GPs formed either through an IPO or a

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
LETTER TO STOCKHOLDERS

restructuring of an existing public entity. The Fund was designed to take advantage of these trends and be a unique way for investors to get exposure to the midstream sector. The Fund's portfolio has evolved since inception (in part in response to the recent wave of simplification transactions), but its investment focus on the midstream industry has remained unchanged. While the simplification transactions have changed the investment landscape — for instance there are no longer any publicly traded GPs — we could not be more pleased about the various ways to invest in the midstream sector that exist today.

Before turning to KMF's performance during fiscal 2018, I would like to comment on recent market volatility. Both the broader equity markets as well as the energy markets have been extremely volatile over the last few months. Crude oil prices declined by almost 45% this fall and MLPs declined by over 25% from their August highs. Fortunately, both have started to recover — with MLPs up 15% from their December lows. We enter 2019 with many questions, including the state of the domestic economy, as well as the potential impact of a trade war between the U.S. and China. It is likely that volatility levels will remain elevated — that is the world we live in today. Fortunately, the Fund is well positioned to deal with this environment. Our leverage ratios are near target levels, providing a buffer against the impact of stock price declines. As has been the case since inception, our investment process is focused on delivering attractive returns over multi-year periods, not reacting to day-to-day price swings.

Performance Review

Fiscal 2018 was a challenging year for the Fund. We primarily measure the Fund's performance based on its Net Asset Value Return, which is equal to the change in net asset value per share plus cash distributions paid during the period (assuming reinvestment through our dividend reinvestment program). Although KMF performed better than the average of its peer Midstream closed end funds during fiscal 2018, the Fund's performance was still disappointing, as its Net Asset Value Return was negative 2.6% (vs. a peer average of negative 3.1%). During the same time period, the total return of the Alerian Midstream Energy Select Index, or AMEI, was negative 5.5%. The AMEI is an index designed to track the performance of North American energy infrastructure companies, including MLPs and Midstream Companies. Though it is challenging to compare the Fund's performance to a benchmark due to the fact that KMF invests in multiple energy-related subsectors, we believe the AMEI is a good benchmark given the Fund's focus on the midstream sector. In particular, we believe the AMEI is the best benchmark for the Fund because it caps the weighting of MLPs in the index at 25% — which is consistent with KMF's maximum weighting in MLPs.

The Fund's Market Return (share price change plus reinvested dividends) during fiscal 2018 was negative 6.7%, as the Fund's discount to NAV per share widened during the year. The trading relationship of the Fund's stock price to NAV is something we monitor closely, and we were disappointed that it ended the fiscal year at a discount to NAV of 12.8%. To the extent the discount remains greater than 10%, we will review the merits of a stock buyback program with the Board of Directors.

In response to the Fund's projection for net distributable income, or NDI, in calendar year 2019, which has been negatively impacted by the simplification transactions announced during 2018, the Fund's Board of Directors decided at our December board meeting to reduce the monthly distribution from \$0.10 per share (\$0.30 per share on a quarterly basis) to \$0.075 per share (\$0.225 per share on a quarterly basis) starting with the distribution that will be paid at the end of this month. Given our view that the majority of material simplification transactions have been announced, we felt it was the appropriate time to reset the distribution to a level that is in line with our revised NDI projections. At the same time that the new distribution was announced, we provided guidance that we intend to maintain this distribution level for the 12-month period ending December 31, 2019. Going forward, each December we intend to reassess our distribution level in light of our NDI and provide distribution guidance for the next twelve months. We understand that our distribution is a key piece of the value

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proposition for our investors, and the goal of this policy is to provide more visibility for our investors while ensuring that we maintain a distribution that is supported by the NDI generated from our portfolio investments.

Changing Midstream Landscape

The most impactful trend in the midstream industry over the last few years has been the simplification transactions between MLPs and Midstream Companies, a topic we have covered in great detail in prior annual letters. These transactions have come in three principal varieties: a roll-up of a subsidiary MLP into its parent, often a Midstream Company; the purchase of the general partner and IDRs by an MLP from its parent; and the merger of two affiliate MLPs that share the same general partner. This trend continued in 2018, with several large simplifications taking place, including Energy Transfer's roll-up of its MLP into its general partner, the roll up of Williams Partners by Williams and the roll-up of Spectra Energy Partners and Enbridge Energy Partners into Enbridge Inc. There were a half dozen other simplification transactions announced or completed during 2018, but rather than recap all of these transactions, we want to take a step back and review these transactions in the context of the broader changes that have been occurring in the sector over the last several years.

Since Kinder Morgan completed the roll-up of its MLPs in November 2014, over 30 MLPs have pursued simplification transactions. These transactions have been good for the sector in that they have eliminated IDRs for the vast majority of MLPs and, as a consequence, created better economic alignment between general partners and limited partners. At the same time, however, most of these transactions were accomplished by the lower-yielding entity purchasing the higher-yielding entity, which resulted in "back-door" distribution cuts for the unitholders of the acquired MLP.

In hindsight, it is easier to see that these simplification transactions were one facet of a broader shift in the midstream sector. As some MLPs pursued simplification transactions, others reduced their distributions or either slowed or stopped distribution growth. The effect of all of these actions is to preserve more internally generated cash flow in order for it to be used to reduce leverage and fund capital expenditures. Similar to what we have seen in the upstream sector, investors have been demanding more capital discipline from companies in the midstream sector. This trend has manifested itself through a more challenging capital markets environment in which it has become much more difficult to issue new common equity. As a result, companies have responded by retaining more internally generated cash flow, as well as pursuing a combination of asset sales, partnering with other companies on projects, structured or preferred financing and (hopefully) eliminating marginal growth projects.

While painful at times for equity holders, these changes are good for the midstream industry over the longer term. Today companies are much healthier, with stronger balance sheets and higher distribution coverage ratios than they had in 2014. Further, a substantial majority of midstream assets are held either by Midstream Companies or MLPs that have eliminated their IDRs, which is very different from a few years ago when IDRs were much more prevalent.

Admittedly, this transformation has taken a toll on investors in the short term, including KMF. Given the large number of back-door distribution cuts from simplifications, along with a few distribution cuts by large MLPs, current distributions being paid to MLP unitholders are well below where they were at the peak in 2014. For example, a portfolio that tracked the Alerian MLP Index, or AMZ, would have experienced a 29% decline in distributions from the fourth quarter of 2014 to today. For long-time MLP unitholders, this decline in distributions was a particularly bitter pill to swallow because many of the simplification transactions that contributed to this reduction also resulted in a tax bill for these investors.

Midstream Industry Update

In last year's letter, we predicted that 2018 would be the year that we would see volume growth and new projects going into service translate into strong financial results for MLPs and Midstream Companies, and that certainly came to pass. It has been a year of record earnings for the industry, exceeding even the most bullish

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estimates, including ours. Domestic crude oil production growth also exceeded expectations during 2018, surpassing the previous record set in 1970. This time last year, the U.S. was producing approximately 10.0 million barrels per day. Currently, domestic production is estimated to be around 11.9 million barrels per day, and the EIA is projecting that the U.S. will exit 2019 at approximately 12.2 million barrels per day. It is worth pointing out that just 12 months ago, the EIA was projecting that the U.S. would exit 2019 at 11.0 million barrels per day of production.

During 2018, crude oil prices averaged \$65 per barrel, but at the end of the year, prices fell sharply as concerns of oversupply from (a) greater than expected U.S. production and (b) higher-than-expected production levels from OPEC coincided with concerns of a slowing global economy and weaker-than-expected demand growth. After falling to the low \$40s (a decline of over \$30 per barrel), oil prices have recovered and are currently in the low \$50 per barrel area.

This recent volatility highlights how sensitive oil prices are to domestic production levels in a world where improving drilling and completion technologies have enabled U.S. upstream companies to grow production to levels that were not thought possible just a few years ago. It is amazing to think that domestic crude production was less than 6 million barrels per day when the Fund went public in November 2010, and that now the U.S. has more than doubled production and surpassed Russia and Saudi Arabia to be the top producer of oil in the world. Equally amazing is the fact that U.S. exports of crude oil averaged 2.0 million barrels per day to world markets during 2018. Until as recently as December 2015, it was against the law to export oil from the U.S.! The world has certainly changed since I joined Kayne Anderson 15 years ago, when the biggest concern was how to reduce the country's dependence on imports of foreign oil.

The same phenomenon has occurred in natural gas and NGLs production as well — both are also at record levels. The U.S. is now exporting 2.9 billion cubic feet per day of liquefied natural gas, or LNG, which is expected to continue to grow. Cheniere Energy Partners currently exports the substantial majority of this domestic LNG from its Sabine Pass facility. Interestingly, when this MLP went public in 2007, this facility was under construction and was being built to import LNG — just another data point that illustrates the transformation in the energy industry as a result of the Shale Revolution.

Growth in domestic NGL production, which has more than doubled since 2011, has revitalized the domestic petrochemical industry. Plentiful supply and competitive prices have positioned the Gulf Coast as one of the lowest cost producers of petrochemicals in the world. As domestic production has increased, the U.S. has become one of the largest exporters of NGLs in the world, as production levels far outstrip domestic demand. To help put in perspective how important exports of NGLs are to balance the market, we expect that over one-third of domestic NGL production will be exported in 2019.

Midstream MLPs and Midstream Companies own the pipelines, terminals and docks that make exports of these commodities possible, and more infrastructure will be needed to accommodate expected production growth. As a result, we believe that the midstream sector is well positioned to grow cash flows over the next few years.

While the Shale Revolution has unquestionably changed the domestic energy industry, in many instances the production growth over the last 15 years has not translated into attractive returns for the companies' stockholders. As a result, investors are demanding companies — in all facets of the energy industry — change the way they do business. In particular, investors want companies to pivot away from a “growth at all costs” mindset to one that is focused on capital efficiency and return on capital employed. We echo this sentiment. While this may slow the rate of growth of cash flow and cash distributions, it should make activity levels more sustainable, help stabilize commodity prices, and help dampen the industry's “boom and bust” cycles. I think it is worth noting that the midstream industry has historically been more disciplined than its upstream peers. We believe the MLP structure, which requires a majority of the free cash flow be paid to investors in the form of quarterly distributions, helped instill this discipline.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
LETTER TO STOCKHOLDERS

Before reviewing our outlook for fiscal 2019, it is also important to point out some of the challenges the sector faces. Currently, one of the biggest impediments to development in the midstream sector is growing opposition to fossil fuels. Over the last few years, environmental groups have increasingly targeted pipeline construction under the theory that if natural gas and oil cannot get to market, it will not get drilled and produced, and their tactics have become increasingly sophisticated. We have seen challenges to pipelines at local, state and federal levels in the courts, from challenging FERC and Army Corps procedures to questioning the propriety of a local air or water permit. These tactics have worked and caused meaningful delays and cost increases for many pipeline projects. Further, environmental groups have been active on the legislative front with ballot initiatives to curb oil and gas development. In Colorado, for example, a proposal to increase setbacks from occupied buildings made the ballot that would have had a material impact on oil and gas development in Colorado. Although the initiative failed, we expect more attempts like this in Colorado and elsewhere. This is the new world order, and in order to navigate it, the energy industry needs to rigidly adhere to existing regulations and procedures, prioritize safety and environmental stewardship and look for ways to compromise where possible in order to gain support from concerned citizens.

Outlook

Our outlook for the midstream industry for the next few years is very positive. We believe MLPs and Midstream Companies are attractively valued and well positioned to generate strong returns for investors. The operating environment for the sector is robust, with continued volume growth driving improved financial results. Further, the sector's transformation is largely complete, as we believe that most of the material simplification transactions have already been announced. If commodity prices were to fall back to their December lows, and activity levels slow more than expected, the midstream sector — with lower leverage levels and higher distribution coverage ratios — is very well positioned to deal with this scenario. For these reasons, we expect the substantial majority of the Fund's investments to be MLPs and Midstream Companies for the foreseeable future and a smaller portion of our portfolio to be allocated to marine transportation and fixed income. For example, at the time of KMF's IPO, our model portfolio was targeting a 70% allocation to Midstream MLPs and Midstream Companies and a 30% allocation to marine transportation and fixed income. Currently, we are targeting those allocations to be 85% and 15%, respectively. Of course, we can modify KMF's target portfolio allocations to the extent that market conditions change and our outlook for the midstream sector becomes less bullish.

In response to the recent decline in commodity prices since early October, we expect upstream companies to moderate their spending levels during 2019. We believe the upstream sector is listening carefully to investor demands that companies spend within cash flows. Even after taking these lower spending levels into account, we expect domestic production to continue to grow this year. Importantly, we believe that oil prices in the mid \$50 per barrel area (very close to where we are today) is a "goldilocks price" for domestic production growth — not too slow, not too fast.

In addition to a supportive fundamental outlook, we believe that midstream valuations are very attractive. Let me provide some facts that support our thesis: The MLPs and Midstream Companies in KMF's portfolio (on a weighted average basis) trade a multiple of 11x Enterprise Value to 2019 EBITDA, have a current yield of 7.0% and a distribution coverage ratio of 1.5x. We anticipate distribution growth rates on these investments will average 5% to 7% over the next few years. Further, these companies have an average debt to 2019 EBITDA ratio of 4.2x. In our opinion, this is an impressive combination of attractive valuations, nice yields and high quality balance sheets.

We appreciate your investment in the Fund and know that the downturn over the last few years has not been a pleasant experience. We believe the midstream sector will continue to perform well operationally, and that stock prices will eventually begin to better reflect the value of these businesses — leading to strong returns. For these reasons, we believe that patient long-term investors in the Fund will be rewarded with very attractive returns over the next three to five years.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
LETTER TO STOCKHOLDERS

On a personal note, I would like to thank the employees of Kayne Anderson, the Board of Directors of the Fund and, most importantly, our investors for eight wonderful years as CEO. I look forward to continuing as chairman of the board for the next year and a half and am excited about my new role at Kayne Anderson. The Board of Directors and I have complete confidence in Jim Baker, who has been my colleague for 22 years, and we are certain when he steps up to the role of CEO in June the Fund will be in good hands as it continues to execute on its business plan of achieving high total returns by investing in MLPs, Midstream Companies and other Energy Companies. We invite you to visit our website at www.kaynefunds.com for the latest updates.

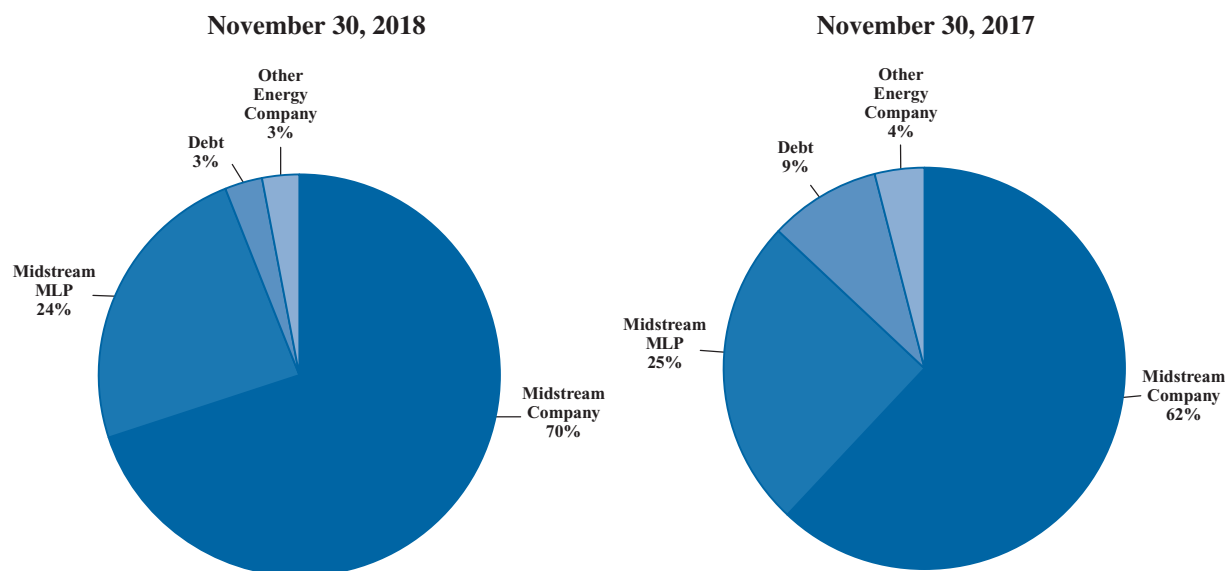
Sincerely,

A handwritten signature in black ink that reads "Kevin S. McCarthy". The signature is written in a cursive, flowing style.

Kevin S. McCarthy
Chairman of the Board of Directors
and Chief Executive Officer

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
PORTFOLIO SUMMARY
(UNAUDITED)

Portfolio of Long-Term Investments by Category⁽¹⁾



Top 10 Holdings by Issuer

Holding	Category ⁽¹⁾	Percent of Long Term Investments as of November 30,	
		2018	2017
1. ONEOK, Inc.	Midstream Company	9.5%	7.8%
2. The Williams Companies, Inc.	Midstream Company	7.5	6.0
3. Targa Resources Corp.	Midstream Company	7.5	7.1
4. Plains GP Holdings, L.P. ⁽²⁾	Midstream Company	7.1	6.6
5. Enbridge Energy Management, L.L.C. ⁽³⁾	Midstream Company	5.1	5.9
6. Kinder Morgan, Inc.	Midstream Company	4.6	1.1
7. Pembina Pipeline Corporation	Midstream Company	4.3	1.6
8. Capital Product Partners L.P. — Class B Units ⁽⁴⁾	Midstream Company	3.9	1.1
9. KNOT Offshore Partners LP	Midstream Company	3.8	3.7
10. Energy Transfer LP	Midstream MLP	3.6	3.8

(1) See Glossary of Key Terms for definitions. Midstream Company category includes Midstream Companies engaged in marine transportation (15% as of November 30, 2018 and 16% as of November 30, 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.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
PORTFOLIO SUMMARY
(UNAUDITED)

- (3) On December 20, 2018, Enbridge Inc. (“ENB”) completed its previously announced acquisition of Enbridge Energy Management, L.L.C. (“EEQ”) in a stock-for-stock exchange. As of November 30, 2018 and 2017, our ownership of ENB represented 2.6% and 3.7% of long-term investments.
- (4) On November 27, 2018, Capital Product Partners L.P. (“CPLP”) and DSS Holdings L.P. (“DSS”), entered into a definitive agreement pursuant to which CPLP has agreed to spin off its crude and product tanker business into a separate publicly listed company, which will merge with DSS. In connection with this transaction, all of our CPLP Class B Units will be redeemed for cash at \$9.00 per unit. The transaction is expected to close in the first quarter of 2019.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
MANAGEMENT DISCUSSION
(UNAUDITED)

Fund Overview

Kayne Anderson Midstream/Energy Fund, Inc. (“KMF”) is a non-diversified, closed-end fund that commenced operations in November 2010. Our investment objective is to provide a high level of total return with an emphasis on making 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.

On August 6, 2018, we completed our merger with Kayne Anderson Energy Total Return Fund, Inc. (“KYE”). Pursuant to the terms of the merger agreement approved by stockholders of KYE, we acquired all of the net assets of KYE (\$405 million) in exchange for an equal net asset value of newly issued KMF common stock (26.8 million shares). Our results of operations for the three months and fiscal year ended November 30, 2018 are not directly comparable to prior periods as these results include income and earnings associated with assets acquired in connection with the merger (included as of the date such merger was completed). See Note 1 — Organization.

As of November 30, 2018, we had total assets of \$0.9 billion, net assets applicable to our common stockholders of \$615 million (net asset value of \$12.57 per share), and 49 million shares of common stock outstanding. As of November 30, 2018, we held \$884 million in equity investments and \$25 million in debt investments.

Recent Events

January, February and March Distributions and Guidance for 2019

On December 17, 2018, we announced a monthly distribution of \$0.075 per share for each of January, February and March of 2019. This distribution was a reduction of \$0.025 per share from the prior monthly rate of \$0.10 per share.

Over the past two years, there has been an ongoing trend of MLPs streamlining their ownership structures through “simplification transactions.” These transactions were designed to eliminate conflicts, strengthen balance sheets and improve distribution coverage ratios. While these transactions have accomplished those goals, they also have had the effect of materially reducing our net distributable income (“NDI”). During our fourth fiscal quarter, this activity accelerated, as several more of these simplifications were announced. Once these transactions are completed, we believe the midstream sector will be substantially finished with the simplification process. As a result, we have much better visibility as to what our NDI will be in 2019. In light of this, the Board of Directors elected to reduce the monthly distribution to \$0.075 per share with respect to the January, February and March 2019 distributions. This distribution level is in line our projected NDI over the next 12 months, after giving effect to all of the transactions that have been announced or are expected to be announced in the near term.

We plan to maintain the monthly distribution of \$0.075 per share for the next 12 months (through the distribution to be paid in December 2019). To the extent there is a material change in projected NDI for 2019, the Board of Directors will reassess the distribution level at such time. We also plan to reassess the distribution level each December and provide guidance for the following 12 months.

Results of Operations — For the Three Months Ended November 30, 2018

Investment Income. Investment income totaled \$5.8 million for the quarter and consisted primarily of net dividends and distributions and interest income on our investments. We received \$15.3 million of dividends and distributions, of which \$10.4 million was treated as return of capital. Interest income was \$0.1 million. We also received \$1.4 million of paid-in-kind dividends during the quarter, which are not included in investment income, but are reflected as an unrealized gain.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
MANAGEMENT DISCUSSION
(UNAUDITED)

Operating Expenses. Operating expenses totaled \$6.4 million, including \$3.0 million of investment management fees, \$2.2 million of interest expense, \$0.8 million of preferred stock distributions and \$0.4 million of other operating expenses. Interest expense includes \$0.2 million of non-cash amortization of debt issuance costs. Preferred stock distributions include \$0.05 million of non-cash amortization.

Net Investment Loss. Our net investment loss totaled \$0.5 million.

Net Realized Losses. We had net realized losses of \$1.6 million, which included \$0.1 million of net realized gains from option activity.

Net Change in Unrealized Gains. We had a net decrease in unrealized gains of \$93.6 million from investments.

Net Decrease in Net Assets Resulting from Operations. We had a decrease in net assets resulting from operations of \$95.7 million. This decrease was comprised of net investment loss of \$0.5 million, net realized losses of \$1.6 million and a net decrease in unrealized gains of \$93.6 million, as noted above.

Results of Operations — For the Fiscal Year Ended November 30, 2018

Investment Income. Investment income totaled \$12.4 million for the year and consisted primarily of net dividends and distributions and interest income on our investments. We received \$37.6 million of dividends and distributions, of which \$29.1 million was treated as return of capital. Return of capital was increased by \$2.2 million due to 2017 tax reporting information that was received in fiscal 2018. Interest income was \$3.9 million. We also received \$4.8 million of paid-in-kind dividends during the year, which are not included in investment income, but are reflected as an unrealized gain.

Operating Expenses. Operating expenses totaled \$17.0 million, including \$7.7 million of investment management fees, \$5.7 million of interest expense, \$2.0 million of preferred stock distributions and \$1.6 million of other operating expenses (including \$0.1 million of merger expenses and a non-cash write-off of shelf offering costs of \$0.1 million). Interest expense includes \$0.6 million of non-cash amortization of debt issuance costs. Preferred stock distributions includes \$0.1 million of non-cash amortization.

Net Investment Loss. Our net investment loss totaled \$4.6 million.

Net Realized Losses. We had net realized losses of \$8.3 million, which includes \$0.3 million of net realized gains from option activity.

Net Change in Unrealized Gains. We had a net decrease in unrealized gains of \$55.0 million from investments.

Net Decrease in Net Assets Resulting from Operations. We had a decrease in net assets resulting from operations of \$67.9 million. This decrease was comprised of net investment loss of \$4.6 million, net realized losses of \$8.3 million and net decrease in unrealized gains of \$55.0 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.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
MANAGEMENT DISCUSSION
(UNAUDITED)

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.

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

	Three Months Ended November 30, 2018⁽¹⁾	Fiscal Year Ended November 30, 2018⁽¹⁾
Distributions and Other Income from Investments		
Dividends	\$ 15.3	\$ 37.6
Paid-In-Kind Dividends ⁽²⁾	1.4	4.8
Interest and Other Income	1.0	4.1
Net Premiums Received from Call Options Written	0.1	0.4
Total Distributions and Other Income from Investments	17.8	46.9
Expenses		
Investment Management Fee	(3.0)	(7.7)
Other Expenses ⁽³⁾	(0.4)	(1.3)
Interest Expense	(2.1)	(5.1)
Preferred Stock Distributions	(0.7)	(1.9)
Net Distributable Income (NDI)	\$ 11.6	\$ 30.9
Weighted Shares Outstanding ⁽⁴⁾	48.9	30.6
NDI per Weighted Share Outstanding	\$0.238	\$1.011
Distributions paid per Common Share⁽⁵⁾	\$0.250	\$ 1.15
	Quarterly Rate	
Distribution Guidance per Common Share for 2019⁽⁶⁾	\$0.225	

- (1) NDI for the three months and fiscal year ended November 30, 2018, includes income and earnings associated with assets acquired in connection with our merger with KYE (included as of August 6, 2018, the date such merger was completed).
- (2) See Note 2 — Significant Accounting Policies to the Financial Statements for additional information regarding paid-in-kind and non-cash dividends and distributions.
- (3) For the fiscal year ended November 30, 2018, excludes \$0.2 million of one-time merger related expenses.
- (4) Weighted shares outstanding for the fiscal year reflects 26.8 million of new KMF shares issued August 6, 2018 in connection with our merger with KYE.
- (5) For the three months ended November 30, 2018, consists of distributions paid, or to be paid, December 31, 2018, January 31, 2019 and February 28, 2019. For the fiscal year ended November 30, 2018, consists of quarterly distributions paid on April 20, 2018 and July 13, 2018, and monthly distributions paid, or to be paid, September 28, 2018, October 31, 2018, November 30, 2018, December 31, 2018, January 31, 2019 and February 28, 2019.
- (6) Based on a monthly distribution of \$0.075 per common share (\$0.90 per common share annualized).

Payment of future distributions is subject to Board of Directors approval, as well as meeting the covenants on our debt agreements and terms of our preferred stock. The Fund has provided guidance on the expected distribution level for 2019 (monthly distribution rate of \$0.075 per common share). The Fund plans to reassess its distribution level each December and provide guidance for the following twelve months. In determining this amount, management and the Board of Directors gives a significant amount of consideration to the NDI the portfolio is expected to generate during the twelve month guidance period.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
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.
- 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.
- 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.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
MANAGEMENT DISCUSSION
(UNAUDITED)

Liquidity and Capital Resources

At November 30, 2018, we had total leverage outstanding of \$300 million, which represented 33% of total assets. Total leverage was comprised of \$201 million of Notes, \$24 million of borrowings outstanding under our unsecured revolving credit facility (the “Credit Facility”) and \$75 million of MRP Shares. At November 30, 2018, we did not have any borrowings outstanding under our unsecured revolving term loan (the “Term Loan”), and we had \$4 million of cash and cash equivalents. As of January 18, 2018, we had \$7 million of borrowings outstanding under our Credit Facility and no borrowings outstanding under our Term Loan, and we had \$1 million of cash and cash equivalents.

Our \$75 million Credit Facility has a 364-day term maturing on February 15, 2019. The interest rate varies between LIBOR plus 1.30% and LIBOR plus 1.95%, depending on the Fund’s asset coverage ratios. The Fund pays a fee of 0.20% per annum on any unused amounts. We assumed the Credit Facility from KYE in connection with our merger with KYE on August 6, 2018. On the same date, we terminated our pre-merger \$75 million unsecured revolving credit facility (the “KMF Credit Facility”) that was scheduled to mature on November 9, 2018. We have initiated a process to renew our Credit Facility prior to its maturity date and expect to complete this renewal process in early February. As part of this process, we intend to increase the size of this facility in connection with the upcoming maturity of our Term Loan.

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 November 30, 2018, we had \$201 million of Notes outstanding that mature between 2020 and 2025 and we had \$75 million of MRP Shares outstanding that are subject to mandatory redemption between 2021 and 2024.

As part of the merger with KYE, we issued Series F, G, H, I and J Notes with terms identical to the previous KYE Series I, J, K, L, and M Notes, respectively. On August 8, 2018 we redeemed all of the Series F Notes. On August 6, 2018, we also issued Series D and Series E MRP Shares (\$40 million liquidation value) with terms identical to the previous KYE Series C and Series D MRP Shares, respectively.

At November 30, 2018, our asset coverage ratios under the Investment Company Act of 1940, as amended (the “1940 Act”), were 407% for debt and 305% for total leverage (debt plus preferred stock). As of January 18, 2019, our asset coverage ratios were 440% for debt and 323% for total leverage. 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 November 30, 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 3.71%.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
SCHEDULE OF INVESTMENTS
NOVEMBER 30, 2018
(amounts in 000's, except number of option contracts)

<u>Description</u>	<u>No. of Shares/Units</u>	<u>Value</u>
Long-Term Investments — 147.9%		
Equity Investments⁽¹⁾ — 143.9%		
United States — 129.9%		
Midstream Companies⁽²⁾ — 90.4%		
Antero Midstream GP LP ⁽³⁾⁽⁴⁾	409	\$ 6,057
Capital Product Partners L.P. — Class B Units ⁽⁴⁾⁽⁵⁾⁽⁶⁾⁽⁷⁾	3,939	35,455
Enbridge Energy Management, L.L.C. ⁽⁸⁾⁽⁹⁾	4,259	46,423
EnLink Midstream, LLC ⁽¹⁰⁾	239	2,726
GasLog Partners LP ⁽⁴⁾	1,289	29,653
Golar LNG Partners LP ⁽⁴⁾	1,197	14,541
Höegh LNG Partners LP ⁽⁴⁾	1,062	18,218
Kinder Morgan, Inc.	2,469	42,145
KNOT Offshore Partners LP ⁽⁴⁾	1,709	34,255
ONEOK, Inc.	1,412	86,713
Plains GP Holdings, L.P. ⁽⁴⁾⁽¹¹⁾	2,205	48,804
Plains GP Holdings, L.P. — Plains AAP, L.P. ⁽⁴⁾⁽⁵⁾⁽¹¹⁾⁽¹²⁾	690	15,881
SemGroup Corporation	558	9,053
Tallgrass Energy, LP ⁽⁴⁾	1,358	29,015
Targa Resources Corp.	1,527	68,160
The Williams Companies, Inc.	2,696	68,270
		<u>555,369</u>
Midstream MLPs⁽²⁾⁽¹³⁾ — 35.3%		
Andeavor Logistics LP	208	7,762
BP Midstream Partners LP	317	5,344
Buckeye Partners, L.P. ⁽¹¹⁾	745	22,035
Cheniere Energy Partners, L.P.	284	10,690
CNX Midstream Partners LP	225	4,071
Crestwood Equity Partners LP	218	6,472
DCP Midstream, LP	513	17,467
Enable Midstream Partners, LP	140	1,868
Energy Transfer LP	2,256	32,870
EnLink Midstream Partners, LP ⁽¹⁰⁾	337	4,458
Enterprise Products Partners L.P.	1,011	26,551
EQT Midstream Partners, LP	77	3,684
Global Partners LP	556	9,611
Magellan Midstream Partners, L.P.	143	8,643
MPLX LP	625	20,706
Noble Midstream Partners LP	1	23
Phillips 66 Partners LP	161	7,572
Shell Midstream Partners, L.P.	346	6,517
Summit Midstream Partners, LP	395	4,855
Western Gas Partners, LP ⁽¹⁴⁾	354	15,741
		<u>216,940</u>
Other Energy Companies — 4.2%		
Marathon Petroleum Corporation ⁽¹⁵⁾	51	3,336
NextEra Energy Partners, LP	150	6,990
Phillips 66	40	3,722

See accompanying notes to financial statements.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
SCHEDULE OF INVESTMENTS
NOVEMBER 30, 2018
(amounts in 000's, except number of option contracts)

Description	No. of Shares/Units	Value
Other Energy Companies (continued)		
Sempra Energy	50	\$ 5,761
Viper Energy Partners LP	198	5,937
		25,746
Total United States (Cost — \$798,884)		798,055
Canada — 14.0%		
Midstream Companies⁽²⁾ — 14.0%		
Enbridge Inc. ⁽⁹⁾	716	23,434
Pembina Pipeline Corporation	1,172	39,468
TransCanada Corporation	571	23,349
		86,251
Total Canada (Cost — \$88,756)		884,306
Total Equity Investments (Cost — \$887,640)		
	Interest Rate	Maturity Date
	Principal Amount	
Debt Instruments — 4.0%		
United States — 2.9%		
Upstream — 2.9%		
California Resources Corporation ⁽⁵⁾⁽¹¹⁾	8.000%	12/15/22
Eclipse Resources Corporation	8.875	7/15/23
		\$12,500
		8,600
		18,069
Total United States (Cost — \$18,009)		18,069
Canada — 1.1%		
Upstream — 1.1%		
Jupiter Resources Inc. ⁽⁵⁾⁽¹⁶⁾⁽¹⁷⁾ (Cost — \$17,561)	8.500	10/1/22
		21,460
		6,599
Total Debt Investments (Cost — \$35,570)		24,668
Total Long-Term Investments (Cost — \$923,210)		908,974
		No. of Shares/Units
Short-Term Investment — 0.3%		
Money Market Fund — 0.3%		
JPMorgan 100% U.S. Treasury Securities Money Market Fund — Capital Shares, 2.08% ⁽¹⁸⁾ (Cost — \$1,887)		1,887
		1,887
Total Investments — 140.1% (Cost — \$925,097)		910,861
	Strike Price	Expiration Date
	No. of Contracts	Notional Amount⁽¹⁹⁾
Liabilities		
Call Option Contracts Written⁽¹⁷⁾		
United States		
Other Energy Company		
Marathon Petroleum Company (Premiums Received — \$29)	\$69.50	12/21/18
		300
		\$ 1,955
		(30)
Debt		(224,923)
Mandatory Redeemable Preferred Stock at Liquidation Value		(75,000)
Other Assets in Excess of Other Liabilities		3,695
Net Assets Applicable to Common Stockholders		\$ 614,603

See accompanying notes to financial statements.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
SCHEDULE OF INVESTMENTS
NOVEMBER 30, 2018
(amounts in 000's, except number of option contracts)

- (1) Unless otherwise noted, equity investments are common units/common shares.
- (2) Refer to the “Glossary of Key Terms” for the definitions of Midstream Companies and Midstream MLPs.
- (3) On October 9, 2018, Antero Midstream GP LP (“AMGP”) and Antero Midstream Partners LP (“AM”) announced that they entered into a definitive agreement for AMGP to acquire all of the outstanding AM common units. In connection with the transaction, AMGP will convert into a corporation and the combined entity will be renamed Antero Midstream Corporation (“New AM”). Under the terms of the agreement, AM unitholders will receive a combination of \$3.415 in cash and 1.635 shares of New AM stock per AM unit owned.
- (4) This company is structured like an MLP, but is not treated as a publicly-traded partnership for regulated investment company (“RIC”) qualification purposes.
- (5) The Fund’s ability to sell this security is subject to certain legal or contractual restrictions. As of November 30, 2018, the aggregate value of restricted securities held by the Fund was \$67,576 (7.4% of total assets), which included \$32,121 of Level 2 securities and \$35,455 of Level 3 securities. See Note 7 — Restricted Securities.
- (6) Fair valued security. See Notes 2 and 3 in Notes to Financial Statements.
- (7) 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). On November 27, 2018, CPLP and DSS Holdings L.P. (“DSS”), entered into a definitive agreement pursuant to which CPLP has agreed to spin off its crude and product tanker business into a separate publicly listed company, which will merge with DSS. In connection with this transaction, all of the Fund’s CPLP Class B Units will be redeemed for cash at \$9.00 per unit. The transaction is expected to close in the first quarter of 2019.
- (8) Dividends are paid-in-kind.
- (9) On December 20, 2018, Enbridge Inc. (“ENB”) completed its previously announced acquisition of Enbridge Energy Management, L.L.C. (“EEQ”) in a stock-for-stock exchange. As of November 30, 2018, the Fund’s combined position in ENB and EEQ was \$69,857.
- (10) On October 22, 2018, EnLink Midstream, LLC (“ENLC”) and EnLink Midstream Partners, LP (“ENLK”) announced that they entered into an agreement for ENLC to acquire all of the outstanding common units of ENLK not already owned by ENLC in a unit-for-unit exchange. Under the terms of the agreement, ENLK unitholders will receive 1.15 common units of the pro forma company, which will retain the name EnLink Midstream, LLC, for each ENLK unit held. The transaction is expected to close in the first quarter of 2019.
- (11) The Fund believes that it is an affiliate of Buckeye Partners, L.P. (“BPL”), Plains AAP, L.P. (“PAGP-AAP”) and Plains GP Holdings, L.P. (“PAGP”). The Fund does not believe that it is an affiliate of California Resources Corporation. See Note 5 — Agreements and Affiliations.
- (12) The Fund’s ownership of PAGP-AAP is exchangeable on a one-for-one basis into either PAGP shares or Plains All American Pipeline, L.P. (“PAA”) units at the Fund’s option. The Fund values its PAGP-AAP investment on an “as exchanged” basis based on the higher public market value of either PAGP or PAA. As of November 30, 2018, the Fund’s PAGP-AAP investment is valued at PAA’s closing price. See Notes 3 and 7 in Notes to Financial Statements.
- (13) Unless otherwise noted, securities are treated as a publicly-traded partnership for RIC qualification purposes. To qualify as a RIC for tax purposes, the Fund may directly invest up to 25% of its total assets in equity and debt securities of entities treated as publicly-traded partnerships. The Fund had 23.6% of its total assets invested in publicly-traded partnerships at November 30, 2018. It is the Fund’s intention to be treated as a RIC for tax purposes.

See accompanying notes to financial statements.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
SCHEDULE OF INVESTMENTS
NOVEMBER 30, 2018
(amounts in 000's, except number of option contracts)

- (14) On November 8, 2018, Western Gas Partners, LP (“WES”) and Western Gas Equity Partners, LP (“WGP”) announced that they entered into an agreement for WGP to acquire all of the publicly held common units of WES in a unit-for-unit exchange. Under the terms of the agreement, WES unitholders will receive 1.525 WGP common units for each WES common unit held. The transaction is expected to close in the first quarter of 2019.
- (15) Security or a portion thereof is segregated as collateral on option contracts written.
- (16) On December 19, 2018, Jupiter Resources Inc. and its affiliates (“Jupiter”), completed a recapitalization transaction. As a result of the reorganization, the Fund received 1,261 common shares of Jupiter Resources Inc. and cash equivalent to the semi-annual interest payment that was scheduled to be paid on October 1, 2018. The common shares are not publicly traded and are subject to certain restrictions. As of October 2, 2018, the Fund stopped accruing interest relating to this security.
- (17) Security is non-income producing.
- (18) The rate indicated is the current yield as of November 30, 2018.
- (19) The notional amount of call option contracts written is the product of (a) the number of contracts written, (b) 100 (each contract entitles the option holder to 100 units/shares) and (c) the market price of the underlying security as of November 30, 2018.

See accompanying notes to financial statements.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
STATEMENT OF ASSETS AND LIABILITIES
NOVEMBER 30, 2018
(amounts in 000's, except share and per share amounts)

ASSETS

Investments, at fair value:	
Non-affiliated (Cost — \$800,788)	\$ 822,254
Affiliated (Cost — \$122,422)	86,720
Short-term investments	<u>1,887</u>
Total investments (Cost — \$925,097)	910,861
Cash	2,000
Deposits with brokers	246
Receivable for securities sold	1,249
Interest, dividends and distributions receivable (Cost — \$2,981)	2,853
Deferred credit facility and term loan offering costs and other assets	<u>397</u>
Total Assets	<u><u>917,606</u></u>

LIABILITIES

Investment management fee payable	955
Accrued directors' fees and expenses	74
Call option contracts written (Premiums received — \$29)	30
Accrued expenses and other liabilities	3,415
Credit facility	24,000
Notes	200,923
Unamortized notes issuance costs	(700)
Mandatory redeemable preferred stock, \$25.00 liquidation value per share (3,000,000 shares issued and outstanding)	75,000
Unamortized mandatory redeemable preferred stock issuance costs	<u>(694)</u>
Total Liabilities	<u>303,003</u>

NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS \$ 614,603

NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS CONSIST OF

Common stock, \$0.001 par value (48,878,499 shares issued and outstanding and, (197,000,000 shares authorized)	\$ 49
Paid-in capital	892,093
Accumulated net investment income less distributions not treated as tax return of capital	(8,889)
Accumulated net realized losses less distributions not treated as tax return of capital	(254,400)
Net unrealized gains (losses)	<u>(14,250)</u>

NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS \$ 614,603

NET ASSET VALUE PER COMMON SHARE \$ 12.57

See accompanying notes to financial statements.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
STATEMENT OF OPERATIONS
FOR THE FISCAL YEAR ENDED NOVEMBER 30, 2018
(amounts in 000's)

INVESTMENT INCOME

Income

Dividends and distributions:	
Non-affiliated investments	\$ 33,986
Affiliated investments	3,625
Money market mutual funds	38
Total dividends and distributions (after foreign taxes withheld \$440)	37,649
Return of capital	(29,067)
Net dividends and distributions	8,582
Interest income	3,855
Total Investment Income	<u>12,437</u>

Expenses

Investment management fees	7,681
Professional fees	430
Directors' fees and expenses	305
Administration fees	216
Insurance	109
Reports to stockholders	92
Custodian fees	66
Merger expenses	115
Other expenses	263
Total Expenses — before interest expense and preferred distributions	9,277
Interest expense and amortization of offering costs	5,702
Distributions on mandatory redeemable preferred stock and amortization of offering costs	2,020
Total Expenses	<u>16,999</u>
Net Investment Loss	<u>(4,562)</u>

REALIZED AND UNREALIZED GAINS (LOSSES)

Net Realized Gains (Losses)

Investments — non-affiliated	(8,967)
Investments — affiliated	348
Foreign currency transactions	(5)
Options	343
Net Realized Losses	<u>(8,281)</u>

Net Change in Unrealized Losses

Investments — non-affiliated	(50,246)
Investments — affiliated	(4,820)
Foreign currency translations	(3)
Options	(1)
Net Change in Unrealized Losses	<u>(55,070)</u>

Net Realized and Unrealized Losses	<u>(63,351)</u>
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NET DECREASE IN NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS RESULTING FROM OPERATIONS	<u><u>\$(67,913)</u></u>
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See accompanying notes to financial statements.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
STATEMENT OF CHANGES IN NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS
(amounts in 000's, except share amounts)

	For the Fiscal Year Ended November 30,	
	2018	2017
OPERATIONS		
Net investment income (loss) ⁽¹⁾	\$ (4,562)	\$ 3,163
Net realized gains (losses)	(8,281)	19,067
Net change in unrealized losses	<u>(55,070)</u>	<u>(65,299)</u>
Net Decrease in Net Assets Resulting from Operations	<u>(67,913)</u>	<u>(43,069)</u>
DIVIDENDS AND DISTRIBUTIONS TO COMMON STOCKHOLDERS⁽²⁾		
Dividends	(2,884)	(609)
Distributions — return of capital	<u>(31,610)</u>	<u>(28,036)</u>
Dividends and Distributions to Common Stockholders	<u>(34,494)</u>	<u>(28,645)</u>
CAPITAL STOCK TRANSACTIONS		
Issuance of 26,844,329 shares of common stock in connection with the merger of Kayne Anderson Energy Total Return Fund, Inc.	405,460	—
Offering expenses associated with the issuance of common stock in merger	<u>(293)⁽³⁾</u>	<u>—</u>
Net Increase in Net Assets Applicable to Common Stockholders from Capital Stock Transactions	<u>405,167</u>	<u>—</u>
Total Increase (Decrease) in Net Assets Applicable to Common Stockholders	<u>302,760</u>	<u>(71,714)</u>
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS		
Beginning of year	<u>311,843</u>	<u>383,557</u>
End of year	<u>\$614,603</u>	<u>\$311,843</u>

- (1) Distributions on the Fund's mandatory redeemable preferred stock ("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. Distributions in the amount of \$1,912 paid to holders of MRP Shares for the fiscal year ended November 30, 2018 were characterized as dividends. Distributions in the amount of \$1,421 paid to holders of MRP Shares for the fiscal year ended November 30, 2017 were characterized as dividends. A portion of the distributions characterized as dividends for the fiscal years ended November 30, 2018 and 2017 was eligible to be treated as qualified dividend income. This characterization is based on the Fund's earnings and profits.
- (2) Distributions paid to common stockholders for the fiscal years ended November 30, 2018 and 2017 were characterized as either dividends (a portion of which was eligible to be treated as qualified dividend income) or distributions (long term capital gains or return of capital). This characterization is based on the Fund's earnings and profits.
- (3) Represents offering costs incurred in connection with the merger of Kayne Anderson Energy Total Return Fund, Inc.

See accompanying notes to financial statements.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
STATEMENT OF CASH FLOWS
FOR THE FISCAL YEAR ENDED NOVEMBER 30, 2018
(amounts in 000's)

CASH FLOWS FROM OPERATING ACTIVITIES

Net decrease in net assets resulting from operations	\$ (67,913)
Adjustments to reconcile net decrease in net assets resulting from operations to net cash provided by operating activities:	
Return of capital distributions	29,067
Net realized losses (excluding foreign currency transactions)	8,276
Net change in unrealized gains (excluding foreign currency translations)	55,067
Accretion of bond discounts, net	(524)
Purchase of long-term investments	(136,940)
Proceeds from sale of long-term investments	130,386
Purchase of short-term investments, net	(1,856)
Decrease in deposits with brokers	229
Decrease in receivable for securities sold	3,085
Decrease in interest, dividends and distributions receivable	6,354
Amortization of deferred debt offering costs	638
Amortization of mandatory redeemable preferred stock offering costs	108
Decrease in other assets	317
Decrease in payable for securities purchased	(132)
Decrease in investment management fee payable	(147)
Increase in premiums received on call option contracts written	29
Decrease in accrued directors' fees and expenses	(59)
Increase in accrued expenses and other liabilities	88
Net Cash Provided by Operating Activities	<u>26,073</u>

CASH FLOWS FROM FINANCING ACTIVITIES

Increase in borrowings under credit facility	14,000
Redemption of notes	(5,077)
Offering expenses associated with the merger of KYE	(293)
Costs associated with renewal of credit facility	(209)
Cash distributions paid to common stockholders	<u>(34,494)</u>
Net Cash Used in Financing Activities	<u>(26,073)</u>

NET CHANGE IN CASH	0
CASH — BEGINNING OF YEAR	<u>2,000</u>
CASH — END OF YEAR	<u>\$ 2,000</u>

Supplemental disclosure of cash flow information:

Non-cash financing activities not included herein consisted of the issuance of \$405,460 of common shares in connection with the merger of Kayne Anderson Energy Total Return Fund, Inc. ("KYE") (see Note 1).

During the fiscal year ended November 30, 2018, interest paid related to debt obligations was \$5,782.

During the fiscal year ended November 30, 2018, the Fund received \$4,806 of paid-in-kind dividends. See Note 2 — Significant Accounting Policies.

See accompanying notes to financial statements.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
FINANCIAL HIGHLIGHTS
(amounts in 000's, except share and per share amounts)

	For the Fiscal Year Ended November 30,		
	2018	2017	2016
Per Share of Common Stock⁽¹⁾			
Net asset value, beginning of period	\$ 14.15	\$ 17.41	\$ 17.56
Net investment income (loss) ⁽²⁾	(0.18)	0.14	(0.07)
Net realized and unrealized gains (losses)	(0.19)	(2.10)	1.43
Total income (loss) from operations	(0.37)	(1.96)	1.36
Common dividends — dividend income ⁽³⁾	(0.10)	(0.03)	(1.50)
Common distributions — long-term capital gains ⁽³⁾	—	—	—
Common distributions — return of capital ⁽³⁾	(1.10)	(1.27)	—
Total dividends and distributions — common	(1.20)	(1.30)	(1.50)
Offering expenses associated with the issuance of common stock	(0.01) ⁽⁵⁾	—	—
Effect of shares issued in reinvestment of distributions	—	—	(0.01)
Effect of issuance of common stock	—	—	—
Effect of common stock repurchased	—	—	—
Net asset value, end of period	<u>\$ 12.57</u>	<u>\$ 14.15</u>	<u>\$ 17.41</u>
Market value per share of common stock, end of period	<u>\$ 10.96</u>	<u>\$ 12.88</u>	<u>\$ 15.33</u>
Total investment return based on common stock market value ⁽⁶⁾	(6.7)%	(8.7)%	12.7%
Total investment return based on net asset value ⁽⁸⁾	(2.6)%	(11.7)%	12.7%
Supplemental Data and Ratios⁽⁹⁾			
Net assets applicable to common stockholders, end of period	\$ 614,603	\$ 311,843	\$ 383,557
Ratio of expenses to average net assets			
Management fees ⁽¹⁰⁾	1.8%	1.7%	1.8%
Other expenses	0.4	0.4	0.5
Subtotal	2.2	2.1	2.3
Interest expense and distributions on mandatory redeemable preferred stock ⁽²⁾	1.8	1.7	3.8
Management fee waiver	—	—	—
Excise taxes	—	—	—
Total expenses	<u>4.0%</u>	<u>3.8%</u>	<u>6.1%</u>
Ratio of net investment income (loss) to average net assets ⁽²⁾	(1.1)%	0.9%	(0.5)%
Net increase (decrease) in net assets applicable to common stockholders resulting from operations to average net assets	(16.1)%	(11.9)%	10.3%
Portfolio turnover rate	21.9%	25.5%	48.2%
Average net assets	\$ 420,605	\$ 360,869	\$ 314,015
Notes outstanding, end of period ⁽¹¹⁾	\$ 200,923	\$ 91,000	\$ 91,000
Credit facility outstanding, end of period ⁽¹¹⁾	\$ 24,000	\$ —	\$ —
Term loan outstanding, end of period ⁽¹¹⁾	\$ —	\$ —	\$ 27,000
Mandatory redeemable preferred stock, end of period ⁽¹¹⁾	\$ 75,000	\$ 35,000	\$ 35,000
Average shares of common stock outstanding	30,639,065	22,034,170	21,975,582
Asset coverage of total debt ⁽¹²⁾	406.6%	481.1%	454.7%
Asset coverage of total leverage (debt and preferred stock) ⁽¹³⁾	304.9%	347.5%	350.7%
Average amount of borrowings per share of common stock during the period ⁽¹⁾	\$ 4.39	\$ 5.16	\$ 4.86

See accompanying notes to financial statements.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
FINANCIAL HIGHLIGHTS
(amounts in 000's, except share and per share amounts)

	For the Fiscal Year Ended November 30,		
	2015	2014	2013
Per Share of Common Stock⁽¹⁾			
Net asset value, beginning of period	\$ 39.51	\$ 35.75	\$ 29.01
Net investment income (loss) ⁽²⁾	0.30	(0.01)	(0.06)
Net realized and unrealized gains (losses)	(18.42)	5.61	8.61
Total income (loss) from operations	(18.12)	5.60	8.55
Common dividends — dividend income ⁽³⁾	(1.68)	(1.57)	(1.15)
Common distributions — long-term capital gains ⁽³⁾	(2.14)	(0.34)	(0.66)
Common distributions — return of capital ⁽³⁾	—	—	—
Total dividends and distributions — common	(3.82) ⁽⁴⁾	(1.91)	(1.81)
Offering expenses associated with the issuance of common stock	—	—	—
Effect of shares issued in reinvestment of distributions	(0.01)	(0.02)	—
Effect of issuance of common stock	—	—	—
Effect of common stock repurchased	—	0.09	—
Net asset value, end of period	\$ 17.56	\$ 39.51	\$ 35.75
Market value per share of common stock, end of period	\$ 15.46	\$ 35.82	\$ 32.71
Total investment return based on common stock market value ⁽⁶⁾	(50.2)%	15.3%	23.5%
Total investment return based on net asset value ⁽⁸⁾	(48.7)%	16.4%	30.5%
Supplemental Data and Ratios⁽⁹⁾			
Net assets applicable to common stockholders, end of period	\$ 380,478	\$ 854,257	\$ 788,057
Ratio of expenses to average net assets			
Management fees ⁽¹⁰⁾	1.9%	1.7%	1.8%
Other expenses	0.2	0.2	0.2
Subtotal	2.1	1.9	2.0
Interest expense and distributions on mandatory redeemable preferred stock ⁽²⁾	2.5	1.7	1.8
Management fee waiver	—	—	—
Excise taxes	0.4	—	0.1
Total expenses	5.0%	3.6%	3.9%
Ratio of net investment income (loss) to average net assets ⁽²⁾	1.0%	(0.0)%	(0.2)%
Net increase (decrease) in net assets applicable to common stockholders resulting from operations to average net assets			
	(58.3)%	14.0%	25.9%
Portfolio turnover rate	45.3%	45.3%	49.1%
Average net assets	\$ 672,534	\$ 887,585	\$ 726,248
Notes outstanding, end of period ⁽¹¹⁾	\$ 185,000	\$ 235,000	\$ 205,000
Credit facility outstanding, end of period ⁽¹¹⁾	\$ —	\$ —	\$ 50,000
Term loan outstanding, end of period ⁽¹¹⁾	\$ —	\$ 46,000	\$ —
Mandatory redeemable preferred stock, end of period ⁽¹¹⁾	\$ 70,000	\$ 105,000	\$ 65,000
Average shares of common stock outstanding	21,657,943	21,897,671	21,969,288
Asset coverage of total debt ⁽¹²⁾	343.5%	441.4%	434.5%
Asset coverage of total leverage (debt and preferred stock) ⁽¹³⁾	249.2%	321.3%	346.3%
Average amount of borrowings per share of common stock during the period ⁽¹⁾	\$ 11.16	\$ 12.84	\$ 10.51

See accompanying notes to financial statements.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
FINANCIAL HIGHLIGHTS
(amounts in 000's, except share and per share amounts)

	For the Fiscal Year Ended November 30,		For the Period November 24, 2010 ⁽¹⁴⁾ through November 30, 2010
	2012	2011	
Per Share of Common Stock⁽¹⁾			
Net asset value, beginning of period	\$ 25.94	\$ 23.80	\$ 23.83 ⁽¹⁵⁾
Net investment income (loss) ⁽²⁾	0.17	0.29	(0.02)
Net realized and unrealized gains (losses)	4.64	3.12	(0.01)
Total income (loss) from operations	<u>4.81</u>	<u>3.41</u>	<u>(0.03)</u>
Common dividends — dividend income ⁽³⁾	(1.30)	(1.20)	—
Common distributions — long-term capital gains ⁽³⁾	(0.41)	—	—
Common distributions — return of capital ⁽³⁾	—	—	—
Total dividends and distributions — common	<u>(1.71)</u>	<u>(1.20)</u>	<u>—</u>
Offering expenses associated with the issuance of common stock	—	—	—
Effect of shares issued in reinvestment of distributions	(0.03)	(0.04)	—
Effect of issuance of common stock	—	(0.03)	—
Effect of common stock repurchased	—	—	—
Net asset value, end of period	<u>\$ 29.01</u>	<u>\$ 25.94</u>	<u>\$ 23.80</u>
Market value per share of common stock, end of period	<u>\$ 28.04</u>	<u>\$ 22.46</u>	<u>\$ 25.00</u>
Total investment return based on common stock market value ⁽⁶⁾	33.3%	(5.5)%	0.0% ⁽⁷⁾
Total investment return based on net asset value ⁽⁸⁾	19.4%	14.7%	(0.1)% ⁽⁷⁾
Supplemental Data and Ratios⁽⁹⁾			
Net assets applicable to common stockholders, end of period	\$635,226	\$ 562,044	\$ 452,283
Ratio of expenses to average net assets			
Management fees ⁽¹⁰⁾	1.7%	1.6%	1.3%
Other expenses	<u>0.3</u>	<u>0.3</u>	<u>0.3⁽¹⁶⁾</u>
Subtotal	2.0	1.9	1.6
Interest expense and distributions on mandatory redeemable preferred stock ⁽²⁾	1.8	1.3	—
Management fee waiver	—	(0.3)	(0.3)
Excise taxes	—	—	—
Total expenses	<u>3.8%</u>	<u>2.9%</u>	<u>1.3%</u>
Ratio of net investment income (loss) to average net assets ⁽²⁾	0.6%	1.1%	(1.3)% ⁽¹⁶⁾
Net increase (decrease) in net assets applicable to common stockholders resulting from operations to average net assets	16.8%	13.4%	(0.1)% ⁽⁷⁾
Portfolio turnover rate	67.6%	74.1%	0.0% ⁽⁷⁾
Average net assets	\$620,902	\$ 537,044	\$ 452,775
Notes outstanding, end of period ⁽¹¹⁾	\$165,000	\$ 115,000	\$ —
Credit facility outstanding, end of period ⁽¹¹⁾	\$ 48,000	\$ 45,000	\$ —
Term loan outstanding, end of period ⁽¹¹⁾	\$ —	\$ —	\$ —
Mandatory redeemable preferred stock, end of period ⁽¹¹⁾	\$ 65,000	\$ 35,000	\$ —
Average shares of common stock outstanding	21,794,596	21,273,512	19,004,000
Asset coverage of total debt ⁽¹²⁾	428.7%	473.2%	—
Asset coverage of total leverage (debt and preferred stock) ⁽¹³⁾	328.5%	388.2%	—
Average amount of borrowings per share of common stock during the period ⁽¹⁾	\$ 8.85	\$ 6.50	—

See accompanying notes to financial statements.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
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 Fund'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 information presented for each period is a characterization of the total distributions paid to the common stockholders as either dividend income (a portion of which was eligible to be treated as qualified dividend income) or distributions (long-term capital gains or return of capital) and is based on the Fund's earnings and profits.
- (4) Includes special distribution of \$1.80 per share paid in July 2015.
- (5) Represents offering costs incurred in connection with the merger of Kayne Anderson Energy Total Return Fund, Inc. (see Note 1).
- (6) 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 Fund's dividend reinvestment plan.
- (7) Not annualized.
- (8) 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 Fund's dividend reinvestment plan.
- (9) Unless otherwise noted, ratios are annualized.
- (10) Ratio reflects total management fee before waiver, if any.
- (11) Principal/liquidation value.
- (12) 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 Fund 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.
- (13) 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 divided by the aggregate amount of Notes, any other senior securities representing indebtedness and MRP Shares (liquidation value). Under the 1940 Act, the Fund 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 Fund, 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 asset coverage ratio tests, the Credit Facility and the Term Loan are considered senior securities representing indebtedness.
- (14) Commencement of operations.
- (15) Initial public offering price of \$25.00 per share less underwriting discounts of \$1.125 per share and offering costs of \$0.05 per share.
- (16) For purposes of annualizing other expenses of the Fund, professional fees and reports to stockholders are fees associated with the annual audit and annual report and therefore have not been annualized.

See accompanying notes to financial statements.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
NOTES TO FINANCIAL STATEMENTS
(amounts in 000's, except number of option contracts, share and per share amounts)

1. Organization

Kayne Anderson Midstream/Energy Fund, Inc. (the “Fund” or “KMF”) was organized as a Maryland corporation on August 26, 2010 and commenced operations on November 24, 2010. The Fund is registered under the Investment Company Act of 1940, as amended (the “1940 Act”), as a non-diversified, closed-end investment management company. The Fund’s investment objective is to provide a high level of return with an emphasis on making quarterly cash distributions to its stockholders. The Fund seeks to achieve that investment objective by investing at least 80% of its 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. The Fund’s shares of common stock are listed on the New York Stock Exchange, Inc. (“NYSE”) under the symbol “KMF.”

On August 6, 2018, KMF completed its merger with Kayne Anderson Energy Total Return Fund, Inc. (“KYE”). Pursuant to the terms of the merger agreement approved by stockholders of KYE, KMF acquired all of the net assets of KYE (\$405,460) in exchange for an equal net asset value of newly issued KMF common stock. A total of 36,841,723 shares of KYE were exchanged for 26,844,329 new common shares of KMF. The merger qualified as a tax-free reorganization under Section 368(a) of the Internal Revenue Code. KYE’s net assets prior to merger included \$110,492 of accumulated net realized losses and \$47,693 of net unrealized appreciation on investments. The aggregate net assets of the Fund prior to merger totaled \$332,807 and following the merger the combined net assets of the Fund were \$738,267.

As a part of the merger, KMF reissued all of KYE’s unsecured notes (“Notes”) outstanding with identical terms. Also, KYE preferred stockholders received an equivalent number of newly issued mandatory redeemable preferred stock (“MRP Shares”) with terms identical to their previously held MRP shares at KYE. See Notes 11 and 12.

The Fund also assumed KYE’s \$75,000 unsecured revolving credit facility (the “Credit Facility”). See Note 10 — Credit Facility and Term Loan.

The Fund’s results of operations for the fiscal year ended November 30, 2018 are not directly comparable to prior periods as these results include income and earnings associated with assets acquired in connection with the merger (included as of the date such merger was completed). Assuming the merger had been completed on December 1, 2017, the beginning of the annual reporting period for the Fund, the pro forma results in the Statement of Operations for the fiscal year ended November 30, 2018 would be as follows.

	Pro Forma For the Fiscal Year Ended November 30, 2018
Net investment loss	\$ (7,674)
Net realized losses	(6,568)
Net change in unrealized gains	<u>(5,361)</u>
Net Decrease in Net Assets Resulting from Operations	<u>\$(19,603)</u>

Because the combined entity has been managed as a single integrated entity since the merger was completed, it is not practicable to separate the amounts of revenue and earnings of KYE that have been included in the Fund’s Statement of Operations since the merger.

2. Significant Accounting Policies

The following is a summary of the significant accounting policies that the Fund uses to prepare its financial statements in accordance with accounting principles generally accepted in the United States of America (“GAAP”). The Fund 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.”

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
NOTES TO FINANCIAL STATEMENTS
(amounts in 000's, except number of option contracts, share and per share amounts)

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 Fund 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 Fund's assets (including accrued interest and distributions), less all of its liabilities (including accrued expenses, distributions payable and any indebtedness) 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 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 Fund's valuation process for securities that are privately issued or otherwise restricted as to resale.

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 Fund 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, each shall 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 Fund's Board of Directors) and the Board of Directors on a quarterly basis.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
NOTES TO FINANCIAL STATEMENTS
(amounts in 000's, except number of option contracts, share and per share amounts)

- **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.

As of November 30, 2018, the Fund held 5.8% of its net assets applicable to common stockholders (3.9% of total assets) in securities that were fair valued pursuant to the procedures adopted by the Board of Directors (Level 3 securities). The aggregate fair value of these securities at November 30, 2018 was \$35,455. See Note 3 — Fair Value and Note 7 — Restricted Securities.

E. *Derivative Financial Instruments* — The Fund may utilize derivative financial instruments in its operations.

Interest rate swap contracts. The Fund may use hedging techniques such as interest rate swaps to mitigate potential interest rate risk on a portion of the Fund's leverage. Such interest rate swaps would principally be used to protect the Fund against higher costs on its leverage resulting from increases in interest rates. The Fund does not hedge any interest rate risk associated with portfolio holdings. Interest rate transactions the Fund may use for hedging purposes may 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 Fund. In addition, if the counterparty to an interest rate swap defaults, the Fund 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 Fund 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 Fund is also exposed to financial market risks including changes in the valuations of its investment portfolio. The Fund 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 Fund 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 Fund would realize either no gain or a loss on the purchased call option. The Fund 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 Fund.

The Fund may also write (sell) call options with the purpose of generating realized gains or reducing its ownership of certain securities. If the Fund writes a call option on a security, the Fund has the obligation upon exercise of the option to deliver the underlying security upon payment of the exercise price. The Fund will only write call options on securities that the Fund holds in its portfolio (*i.e.*, covered calls).

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
NOTES TO FINANCIAL STATEMENTS
(amounts in 000's, except number of option contracts, share and per share amounts)

When the Fund writes a call option, an amount equal to the premium received by the Fund 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 Fund on the expiration date as realized gains from investments. If the Fund 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 Fund has realized a gain or loss. The Fund, 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.

F. *Security Transactions* — Security transactions are accounted for on the date the 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 Fund utilizes the average cost method to compute the adjusted tax cost basis of its MLP securities.

G. *Return of Capital Estimates* — Dividends and distributions received from the Fund's investments in MLPs and Midstream Companies generally are comprised of income and return of capital. Payments made by MLPs (and other entities treated as partnerships for federal income tax purposes) are categorized as "distributions" and payments made by corporations are categorized as "dividends." At the time such dividends and distributions are received, the Fund estimates the amount of such payments that is considered investment income and the amount that is considered a return of capital. The Fund estimates the return of capital portion of distributions received from its MLP investments based on historical information available from the investments. The Fund estimates the return of capital portion of dividends received from Midstream Companies based on information provided by each investment. These estimates are adjusted to actual in the subsequent fiscal year when final tax reporting information related to the Fund's investments is received.

On December 22, 2017, the Tax Cuts and Jobs Act (the "Tax Reform Bill") was signed into law. The Tax Reform Bill permits immediate expensing of qualified capital expenditures for the next five years, and as a result, the Fund's portfolio companies may pass through more deductions which may result in a higher portion of distributions received to be characterized as return of capital.

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 Fund exceed its cost basis (*i.e.* its cost basis has been reduced to zero), the distributions are treated as realized gains.

The Fund 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 fiscal year ended November 30, 2018, the Fund estimated \$29,067 of return of capital and there were no distributions that were in excess of cost basis.

In accordance with GAAP, the return of capital cost basis reductions for the Fund'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 Fund's MLP investments typically exceed cash distributions received from such investments due to allocated losses from these investments.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
NOTES TO FINANCIAL STATEMENTS
(amounts in 000's, except number of option contracts, share and per share amounts)

The following table sets forth the Fund's estimated return of capital portion of the dividends and distributions received from its investments.

	<u>For the Fiscal Year Ended November 30, 2018</u>
Dividends from investments	\$25,027
Distributions from investments	<u>13,062</u>
Total dividends and distributions from investments (before foreign taxes withheld of \$440)	<u>\$38,089</u>
Dividends — % return of capital	66%
Distributions — % return of capital	96%
Total dividends and distributions — % return of capital	76%
Return of capital — attributable to net realized gains (losses)	\$ 3,409
Return of capital — attributable to net change in unrealized gains (losses)	<u>25,658</u>
Total return of capital	<u>\$29,067</u>

For the fiscal year ended November 30, 2018, the Fund estimated the return of capital portion of dividends and distributions received to be \$26,821 (70%). During the second quarter of fiscal 2018, the Fund increased its return of capital estimate for the year by \$2,246 due to 2017 tax reporting information received by the Fund in fiscal 2018. As a result, the return of capital percentage for the fiscal year ended November 30, 2018 was 76%.

H. *Investment Income* — The Fund 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 Fund 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.

Many of the debt securities that the Fund holds were purchased at a discount or premium to the par value of the security. The non-cash accretion of a discount to par value increases interest income while the non-cash amortization of a premium to par value decreases interest income. The accretion of a discount and amortization of a premium are based on the effective interest method. The amount of these non-cash adjustments can be found in the Fund'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 Fund discontinues accruing the non-cash accretion of the discount to par value of the debt security.

The Fund 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 Fund has the option to receive its distribution in cash or in additional shares or units of the security.

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During the fiscal year ended November 30, 2018, the Fund received the following paid-in-kind dividends. There were no non-cash distributions received during the fiscal year ended November 30, 2018 from any of the Fund's investments.

	<u>For the Fiscal Year Ended November 30, 2018</u>
Buckeye Partners, L.P. — Class C Units	\$ 683
Enbridge Energy Management, L.L.C.	<u>4,123</u>
Total paid-in-kind dividends	<u>\$4,806</u>

I. *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 Fund 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 Fund'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 dividend income (eligible to be treated as qualified dividend income) or distributions (long-term capital gains or return of capital) is determined after the end of the fiscal year based on the Fund's actual earnings and profits and, therefore, the characterization may differ from preliminary estimates.

J. *Partnership Accounting Policy* — The Fund 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 Fund's Statement of Operations.

K. *Taxes* — It is the Fund's intention to continue to be treated as and to qualify each year for special tax treatment afforded a regulated investment company ("RIC") under Subchapter M of the Internal Revenue Code of 1986, as amended (the "Code"). As long as the Fund meets certain requirements that govern its sources of income, diversification of assets and timely distribution of earnings to stockholders, the Fund will not be subject to U.S. federal income tax.

The Fund must pay distributions equal to 90% of its investment company taxable income (ordinary income and short-term capital gains) to qualify as a RIC and it must distribute all of its taxable income (ordinary income, short-term capital gains and long-term capital gains) to avoid federal income taxes. The Fund will be subject to federal income tax on any undistributed portion of income. For purposes of the distribution test, the Fund may elect to treat as paid on the last day of its taxable year all or part of any distributions that are declared after the end of its taxable year if such distributions are declared before the due date of its tax return, including any extensions (August 15th). See Note 6 — Taxes.

All RICs are subject to a non-deductible 4% excise tax on income that is not distributed on a timely basis in accordance with the calendar year distribution requirements. To avoid the tax, the Fund must distribute during each calendar year an amount at least equal to the sum of (i) 98% of its ordinary income for the calendar year, (ii) 98.2% of its net capital gains for the one-year period ending on November 30, the last day of our taxable year, and (iii) undistributed amounts from previous years on which the Fund paid no U.S. federal income tax. A distribution will be treated as paid during the calendar year if it is paid during the calendar year or declared by the Fund in October, November or December, payable to stockholders of record on a date during such months and paid by the Fund during January of the following year. Any such distributions paid during January of the following year will be deemed to be received by stockholders on December 31 of the year the distributions are declared, rather than when the distributions are actually received.

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The Fund will be liable for the excise tax on the amount by which it does not meet the distribution requirement and will accrue an excise tax liability at the time that the liability is estimable and probable.

Dividend income received by the Fund from sources within Canada is subject to a 15% foreign withholding tax. Interest income on Canadian corporate debt obligations should generally be exempt from withholding tax on interest, with a few exceptions (e.g., a profit participating debt interest).

The Accounting for Uncertainty in Income Taxes Topic of the FASB Accounting Standards Codification (ASC 740) defines the threshold for recognizing the benefits of tax-return positions in the financial statements as “more-likely-than-not” to be sustained by the taxing authority and requires measurement of a tax position meeting the more-likely-than-not criterion, based on the largest benefit that is more than 50% likely to be realized.

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

The Fund’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 2014 remain open and subject to examination by federal and state tax authorities.

Currently, the Fund does not believe the Tax Reform Bill will have a material impact on it given its intention to continue to qualify as a RIC, which is generally not subject to U.S. federal income tax. The Tax Reform Bill includes a limitation on the deductibility of net interest expense. To the extent the Fund’s deductions are limited in any given year, the Fund will be able to utilize such deductions in future periods if it has sufficient taxable income.

L. Foreign Currency Translations — The books and records of the Fund are maintained in U.S. dollars. Foreign currency amounts are translated into U.S. dollars on the following basis: (i) market value of investment securities, assets and liabilities at the rate of exchange as of the valuation date; and (ii) purchases and sales of investment securities, income and expenses at the relevant rates of exchange prevailing on the respective dates of such transactions.

The Fund does not isolate that portion of gains and losses on investments in equity and debt securities which is due to changes in the foreign exchange rates from that which is due to changes in market prices of equity and debt securities. Accordingly, realized and unrealized foreign currency gains and losses with respect to such securities are included in the reported net realized and unrealized gains and losses on investment transactions balances.

Net realized foreign exchange gains or losses represent gains and losses from transactions in foreign currencies and foreign currency contracts, foreign exchange gains or losses realized between the trade date and settlement date on security transactions, and the difference between the amounts of interest and dividends recorded on the Fund’s books and the U.S. dollar equivalent of such amounts on the payment date.

Net unrealized foreign exchange gains or losses represent the difference between the cost of assets and liabilities (other than investments) recorded on the Fund’s books from the value of the assets and liabilities (other than investments) on the valuation date.

M. Indemnifications — Under the Fund’s organizational documents, its officers and directors are indemnified against certain liabilities arising out of the performance of their duties to the Fund. In addition, in the normal course of business, the Fund enters into contracts that provide general indemnification to other parties. The Fund’s maximum exposure under these arrangements is unknown, as this would involve future claims that may be made against the Fund that have not yet occurred, and may not occur. However, the Fund has not had prior claims or losses pursuant to these contracts and expects the risk of loss to be remote.

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

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For the purpose of calculating the Fund's asset coverage ratios pursuant to the 1940 Act, deferred issuance costs are not deducted from the carrying value of Notes and MRP Shares.

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 Fund has performed an analysis of all assets and liabilities measured at fair value to determine the significance and character of all inputs to their fair value determination. 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 Fund obtains from independent, third-party sources. Unobservable inputs are developed by the Fund 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 Fund 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 Fund's own assumptions that market participants would use to price the asset or liability based on the best available information.

The following table presents the Fund's assets and liabilities measured at fair value on a recurring basis at November 30, 2018, and the Fund 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.

	<u>Total</u>	<u>Quoted Prices in Active Markets (Level 1)</u>	<u>Prices with Other Observable Inputs (Level 2)</u>	<u>Unobservable Inputs (Level 3)</u>
<u>Assets at Fair Value</u>				
Equity investments	\$884,306	\$832,971	\$15,881 ⁽¹⁾	\$35,455
Debt investments	24,668	—	24,668	—
Short-term investments	1,887	1,887	—	—
Total assets at fair value	<u>\$910,861</u>	<u>\$834,858</u>	<u>\$40,549</u>	<u>\$35,455</u>
<u>Liabilities at Fair Value</u>				
Call option contracts written	\$ 30	\$ —	\$ 30	\$ —

(1) The Fund'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 Fund's option. The Fund values its PAGP-AAP investment on an "as exchanged" basis based on the higher public market value of either PAGP or PAA. As of November 30, 2018, the Fund's PAGP-AAP investment is valued at PAA's closing price. The Fund categorizes its investment as a Level 2 security for fair value reporting purposes.

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The Fund did not have any liabilities that were measured at fair value on a recurring basis using significant unobservable inputs (Level 3) at November 30, 2018.

As of November 30, 2018, the Fund had Notes outstanding with aggregate principal amount of \$200,923 and 3,000,000 shares of MRP Shares outstanding with a total liquidation value of \$75,000. The Notes and MRP Shares were issued in private placements to institutional investors and are not listed on any exchange or automated quotation system. See Note 11 — Notes and Note 12 — Preferred Stock. As a result, the Fund categorizes the Notes and MRP Shares as Level 3 securities 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 Fund records the Notes and MRP Shares on its Statement of Assets and Liabilities at principal amount or liquidation value. As of November 30, 2018, the estimated fair values of these leverage instruments are as follows.

<u>Security</u>	<u>Principal Amount/ Liquidation Value</u>	<u>Fair Value</u>
Notes	\$200,923	\$199,100
MRP Shares	\$ 75,000	\$ 72,700

The following table presents the Fund's assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the fiscal year ended November 30, 2018.

	<u>Equity Investments</u>
Balance — November 30, 2017	\$ 4,752
Purchases	7,500
Issuances	683
Acquired through merger with KYE (see Note 1)	32,672
Transfers out to Level 1 and 2	(14,155)
Realized gains (losses)	—
Unrealized gains (losses), net	4,003
Balance — November 30, 2018	<u>\$ 35,455</u>

The purchase of \$7,500 relates to the Fund's investment in Buckeye Partners, L.P. ("BPL") Class C Units that was made in March 2018. The issuance of \$683 relate to paid-in-kind BPL Class C Units received.

In connection with its merger with KYE (see Note 1), the Fund acquired \$32,672 of securities that were measured at fair value using significant unobservable inputs. The following table presents the securities that were acquired based on their fair value as measured at the time of the merger.

<u>Investment</u>	<u>Fair Value Acquired</u>
Buckeye Partners, L.P. — Class C Units	\$ 5,972
Capital Product Partners L.P. — Class B Units	26,700
	<u>\$32,672</u>

The transfers out of \$14,155 relate to the Company's investment in BPL Class C Units that were converted to common units during the fourth quarter of 2018. The \$4,003 of net unrealized gains relate to investments that are still held at the end of the reporting period and the Fund includes these unrealized gains (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 Fund values its private investments in public equity ("PIPE") investments that are convertible into or otherwise will become publicly-tradeable (e.g., through

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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 Fund 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 Fund owns Class B Units of Capital Product Partners L.P. (“CPLP”). The Class B Units are 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. On November 27, 2018, CPLP and DSS Holdings L.P. (“DSS”), entered into a definitive agreement pursuant to which CPLP has agreed to spin off its crude and product tanker business into a separate publicly listed company which will merge with DSS. In connection with this transaction, all of the Fund’s CPLP Class B Units will be redeemed for cash at \$9.00 per unit. The transaction is subject to customary closing conditions, does not require a unitholder vote and is expected to close in the first quarter of 2019. As a result of the announced transaction, the Fund now values its investment in CPLP Class B Units at \$9.00 per unit.

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 Fund’s investments may fluctuate from period to period. Additionally, the fair value of the Fund’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 Fund may ultimately realize.

The following table summarizes the significant unobservable inputs that the Fund used to value its portfolio investments categorized as Level 3 as of November 30, 2018:

Quantitative Table for Valuation Techniques

Assets at Fair Value	Fair Value	Valuation Technique	Unobservable Inputs	Range		Average
				Low	High	
CPLP Class B Units	\$35,455	- Redemption price	- Redemption price per unit	\$9.00	\$9.00	\$9.00

4. Concentration of Risk

The Fund’s investments are concentrated in the energy sector. The focus of the Fund’s portfolio within the energy sector may present more risks than if the Fund’s portfolio were broadly diversified across numerous sectors of the economy. A downturn in the energy sector would have a larger impact on the Fund 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 Fund invests a relatively high percentage of its assets in the securities of a limited number of issuers, the Fund may be more susceptible than a more widely diversified investment company to any single economic, political or regulatory occurrence. At November 30, 2018, the Fund had the following investment concentrations:

Category	Percent of Long-Term Investments
Securities of Energy Companies ⁽¹⁾	100.0%
Equity securities	97.3%
Debt securities	2.7%
Securities of MLPs ⁽¹⁾	23.9%
Largest single issuer	9.5%
Restricted securities	7.4%

(1) Refer to the “Glossary of Key Terms” for the definitions of Energy Companies and MLPs.

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5. Agreements and Affiliations

A. *Administration Agreement* — On August 1, 2018, in connection with its merger with KYE, the Fund entered into an amended administration and accounting agreement with Ultimus Fund Solutions, LLC (“Ultimus”). Pursuant to the agreement, Ultimus will continue to provide certain administrative and accounting services for the Fund. The agreement has an initial term of three years and automatic one-year renewals unless earlier terminated by either party as provided under the terms of the agreement.

B. *Investment Management Agreement* — The Fund has entered into an investment management agreement with KA Fund Advisors, LLC (“KAFA”) under which KAFA, subject to the overall supervision of the Fund’s Board of Directors, manages the day-to-day operations of, and provides investment advisory services to, the Fund. On March 27, 2018, the Fund renewed its investment management agreement with KAFA for a period of one year. The investment management agreement will expire on March 31, 2019 and may be renewed annually thereafter upon approval of the Fund’s Board of Directors (including a majority of the Fund’s directors who are not “interested persons” of the Fund, as such term is defined in the 1940 Act). For providing these services, KAFA receives an investment management fee from the Fund. For the fiscal year ended November 30, 2018, the Fund paid management fees at an annual rate of 1.25% of the average monthly total assets of the Fund.

For purposes of calculating the management fee, the “average total assets” for each monthly period are determined by averaging the total assets at the last business day of that month with the total assets at the last business day of the prior month. The total assets of the Fund shall be equal to its average monthly gross asset value (which includes assets attributable to the Fund’s use of debt and preferred stock), minus the sum of the Fund’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 Fund). Liabilities associated with borrowing or leverage include the principal amount of any debt issued by the Fund, 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 Fund.

C. *Section 16(a) Beneficial Ownership Reporting Compliance* — On June 28, 2018, the Fund’s stockholders added two directors to its board who were then also directors of KYE, Ms. Costin and Mr. Shea. KYE was later reorganized into the Fund, effective on August 6, 2018. The Form 3 filings for Ms. Costin and Mr. Shea were filed late on August 15, 2018. KACALP assists in those filings.

On August 15, 17 and 21, 2018, KACALP, KAFA and various officers and directors of the Fund voluntarily filed Form 4s with respect to the shares of the Fund received by them in exchange for shares previously held in KYE as a result of the transaction where KYE was merged into the Fund effective as of August 6, 2018. Those Form 4s were filed in lieu of later reporting of those transactions and updated holdings of the Fund’s stock in subsequent required Form 4 filings or in filings of Form 5s after the Fund’s fiscal year end.

D. *Portfolio Companies* — From time to time, the Fund 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 Fund would be presumed to “control” a portfolio company if the Fund and its affiliates owned 25% or more of its outstanding voting securities and would be an “affiliate” of a portfolio company if the Fund 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 Fund’s investment adviser), principal underwriters and affiliates of those affiliates or underwriters.

The Fund 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 Fund invests. The Fund 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.

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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 Fund 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 Fund holds in certain limited partnerships to be voting securities. If such a determination were made, the Fund 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 Fund holds as a voting security, the Fund 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 Fund 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 Fund has treated those securities as voting securities. If the Fund does not consider the security to be a voting security, it will not consider such partnership to be an "affiliate" unless the Fund 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 Fund 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 Fund 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 Fund will be required to abide by the restrictions on "control" or "affiliate" transactions as proscribed in the 1940 Act. The Fund 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 Fund 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 Fund were allowed to engage in such a transaction, that the terms would be more or as favorable to the Fund 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 Fund or on the type of investments that it could make.

As of November 30, 2018, the Fund believes that Buckeye Partners, L.P. ("BPL") meets the criteria described above and is therefore considered an affiliate of the Fund.

Plains AAP, L.P., and Plains GP Holdings, 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, PAA units and interests in Plains AAP, L.P. ("PAGP-AAP"). The Fund believes that it is an affiliate of PAGP and PAGP-AAP under the 1940 Act by virtue of (i) the Fund's and other affiliated Kayne Anderson funds' ownership interest in PAGP and PAGP-AAP and (ii) Mr. Sinnott's participation on the board of PAA GP Holdings LLC.

California Resources Corporation — Mr. Sinnott serves as a director of California Resources Corporation ("CRC"). The Fund's investment in CRC is not a voting security, and as such, the Fund does not believe that it is an affiliate of CRC. Despite Mr. Sinnott's participation on the board of CRC, the Fund does not believe that it is an affiliate of CRC because the Fund's and other Kayne Anderson funds' aggregate ownership does not meet the criteria described above, and because the Fund's investment in CRC is not a voting security.

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The following table summarizes the Fund's investments in affiliates as of and for the fiscal year ended November 30, 2018:

<u>Investment⁽¹⁾</u>	<u>No. of Shares/Units⁽²⁾ (in 000's)</u>	<u>Value</u>	<u>Dividends/ Distributions Received</u>	<u>Net Realized Gains (Losses)</u>	<u>Net Change in Unrealized Gains (Losses)</u>
Buckeye Partners, L.P.	745	\$22,035	\$1,504	\$348	\$(5,762)
Plains GP Holdings, L.P.	2,205	48,804	1,294	—	(1,877)
Plains GP Holdings, L.P. — Plains AAP, L.P.	690	<u>15,881</u>	<u>827</u>	<u>—</u>	<u>2,819</u>
Total		<u>\$86,720</u>	<u>\$3,625</u>	<u>\$348</u>	<u>\$(4,820)</u>

(1) See Schedule of Investments for investment classification.

(2) During the fiscal year ended November 30, 2018, the Fund purchased 39 units of BPL and purchased 176 units of BPL Class C Units and there were no purchases of PAGP or PAGP-AAP. In connection with the merger with KYE (see Note 1), the Fund acquired 236 units of BPL, 182 units of BPL Class C Units and 1,503 units of PAGP. The Fund also received 113 BPL Class C Units from paid-in-kind distributions during the fiscal year. During the fourth quarter of 2018, all of the Fund's BPL Class C Units converted to common units. During the fiscal year ended November 30, 2018, the Company sold 35 BPL common units. There were no sales of PAGP or PAGP-AAP during the fiscal year.

6. Taxes

It is the Fund's intention to continue to be treated as and to qualify as a RIC under Subchapter M of the Code and distribute all of its taxable income. Accordingly, no provision for federal income taxes is required in the financial statements. See Note 2 — Significant Accounting Policies.

Income and capital gain distributions made by RICs often differ from GAAP basis net investment income (loss) and net realized gains (losses). For the Fund, the principal reason for these differences is the return of capital treatment of dividends and distributions from MLPs and certain other of its investments. Net investment income and net realized gains for GAAP purposes may differ from taxable income for federal income tax purposes.

As of November 30, 2018, the principal temporary differences between income for GAAP purposes and taxable income were (a) realized losses that were recognized for GAAP purposes, but disallowed for tax purposes due to wash sale rules; (b) disallowed partnership losses related to the Fund's MLP investments; and (c) other basis adjustments in the Fund's MLPs and other investments.

During the fiscal year ended November 30, 2018, the Fund reclassified \$1,949 from paid in capital to accumulated net investment income primarily due to distributions in excess of taxable income and the permanent differences between GAAP and tax treatment of the amortization of offering costs for MRP Shares. The Fund also reclassified \$9,432 of accumulated realized gains to accumulated net investment income due to permanent differences between GAAP and tax treatment of certain net realized gains.

The tax basis of the components of distributable earnings can differ from the amounts reflected in the Statement of Assets and Liabilities due to temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. At November 30, 2018,

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

the Fund did not have any undistributed ordinary income or long-term capital gains. The following table sets forth the components of accumulated income or deficit for the Fund.

	<u>As of November 30, 2018</u>
Capital loss carryforward	\$(253,644)
Unrealized depreciation of investments	<u>(23,255)</u>
Total accumulated income (deficit)	<u><u>\$(276,899)</u></u>

For the fiscal year ended November 30, 2018, the tax character of the total \$34,494 distributions paid to common stockholders was \$2,884 of dividend income and \$31,610 of return of capital. The tax character of the total \$1,912 distributions paid to holders of MRP shares was dividend income.

For the fiscal year ended November 30, 2017, the tax character of the total \$28,645 distributions paid to common stockholders was \$609 of dividend income and \$28,036 of return of capital. The tax character of the total \$1,421 distributions paid to holders of MRP shares was dividend income.

For purposes of determining the tax character of the dividends/distributions to investors, the amounts in excess of the Fund's earnings and profits for federal income tax purposes are treated as a return of capital. Earnings and profits differ from taxable income due principally to adjustments related to the Fund's investments in MLPs.

The Fund acquired all of the net assets of KYE on August 6, 2018 in a tax-free reorganization under Section 368(a) of the Internal Revenue Code. For certain tax purposes, due to its larger market value at the time of the merger, KYE was determined to be the technical tax acquirer. As of November 30, 2017, KYE and KMF had capital loss carryforwards of \$113,715 and \$119,575, respectively. As of the merger date, KMF had estimated capital loss carryforwards of \$129,948. As KYE is the technical tax acquirer, KYE's capital loss carryforwards can be carried forward indefinitely and generally should not be limited as a result of the merger with KMF. Regulations under Section 382 of the Internal Revenue Code ("Section 382") limit the amount of capital gains that can be offset by KMF's capital loss carryforward to \$8,533, annually, until all of KMF's loss carryforwards are fully utilized. As of the merger date, KMF had \$38,230 of unrealized built-in gains for tax purposes. In addition to the Section 382 annual limitation, the Fund will be able to utilize KMF's capital loss carryforwards up to the amount of built-in gains that are realized.

Under the Regulated Investment Company Modernization Act of 2010, any net capital losses recognized after December 31, 2010 may be carried forward indefinitely, and their character is retained as short-term and/or long-term losses.

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

At November 30, 2018, the cost basis of investments for federal income tax purposes was \$934,058, and the premiums received on outstanding option contracts written were \$29. At November 30, 2018, gross unrealized appreciation and depreciation of investments and options, if any, for federal income tax purposes were as follows:

Gross unrealized appreciation of investments (including options, if any)	\$ 114,242
Gross unrealized depreciation of investments (including options, if any)	<u>(137,491)</u>
Net unrealized appreciation of investments before foreign currency related translations	(23,249)
Unrealized depreciation on foreign currency related translations	<u>(6)</u>
Net unrealized appreciation of investments	<u><u>\$ (23,255)</u></u>

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
NOTES TO FINANCIAL STATEMENTS
(amounts in 000's, except number of option contracts, share and per share amounts)

7. Restricted Securities

From time to time, the Fund'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 Fund's investments have restrictions such as lock-up agreements that preclude the Fund from offering these securities for public sale.

At November 30, 2018, the Fund held the following restricted investments:

Investment	Acquisition Date	Type of Restriction	Number of Units, Principal (\$) (in 000s)	Cost Basis (GAAP)	Fair Value	Fair Value Per Unit	Percent of Net Assets	Percent of Total Assets
Level 2 Investments								
<u>Equity Investments</u>								
Plains GP Holdings, L.P. — Plains AAP, L.P. ⁽¹⁾	(2)	(3)	690	\$ 2,509	\$15,881	\$23.03	2.6%	1.7%
<u>Senior Notes⁽⁴⁾</u>								
California Resources Corporation	(2)	(5)	12,500	9,596	9,641	n/a	1.5	1.1
Jupiter Resources Inc.	(2)	(6)	21,460	17,561	6,599	n/a	1.1	0.7
Total				<u>\$29,666</u>	<u>\$32,121</u>		<u>5.2%</u>	<u>3.5%</u>
Level 3 Investments⁽⁷⁾								
<u>Equity Investments</u>								
Capital Product Partners L.P.								
Class B Units	(2)	(5)	3,939	\$19,766	\$35,455	\$ 9.00	5.8%	3.9%
Total of all restricted investments				<u>\$49,432</u>	<u>\$67,576</u>		<u>11.0%</u>	<u>7.4%</u>

- (1) The Fund 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 November 30, 2018, the Fund's PAGP-AAP investment is valued at PAA's closing price. See Note 3 — Fair Value.
- (2) Security was acquired at various dates in current and/or prior fiscal years.
- (3) The Fund's investment in PAGP-AAP is exchangeable on a one-for-one basis into either PAGP shares or PAA units at the Fund's option. Upon exchange, the PAGP shares or PAA units will be freely tradable.
- (4) These securities have a fair market value determined by the mean of the bid and ask prices provided by an agent or a syndicate bank, a principal market maker, an independent pricing service or an independent broker as more fully described in Note 2 — Significant Accounting Policies. These securities have limited trading volume and are not listed on a national exchange.
- (5) Unregistered or restricted security of a publicly-traded company.
- (6) Unregistered security of a private company.
- (7) Securities are valued using inputs reflecting the Fund's own assumptions as more fully described in Note 2 — Significant Accounting Policies and Note 3 — Fair Value.

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 Fund. See Note 2 — Significant Accounting Policies.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
NOTES TO FINANCIAL STATEMENTS
(amounts in 000's, except number of option contracts, share and per share amounts)

Option Contracts — Transactions in option contracts for the fiscal year ended November 30, 2018 were as follows:

	<u>Number of Contracts</u>	<u>Premium</u>
Call Options Written		
Options outstanding at November 30, 2017	—	\$ —
Options written	6,891	538
Options subsequently repurchased ⁽¹⁾	(5,611)	(448)
Options exercised	(300)	(30)
Options expired	<u>(680)</u>	<u>(31)</u>
Options outstanding at November 30, 2018	<u>300</u>	<u>\$ 29</u>

(1) The price at which the Fund subsequently repurchased the options was \$136, which resulted in net realized gains of \$312.

Interest Rate Swap Contracts — The Fund 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 Fund 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 Fund is required to terminate any swap contract early, then the Fund could be required to make a termination payment. As of November 30, 2018, the Fund did not have any interest rate swap contracts outstanding.

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

<u>Derivatives Not Accounted for as Hedging Instruments</u>	<u>Statement of Assets and Liabilities Location</u>	<u>Fair Value as of November 30, 2018</u>
Call options written	Call option contracts written	\$(30)

The following table sets forth the effect of the Fund's derivative instruments on the Statement of Operations:

<u>Derivatives Not Accounted for as Hedging Instruments</u>	<u>Location of Gains/(Losses) on Derivatives Recognized in Income</u>	<u>For the Fiscal Year Ended November 30, 2018</u>	
		<u>Net Realized Gains/(Losses) on Derivatives Recognized in Income</u>	<u>Change in Unrealized Gains/(Losses) on Derivatives Recognized in Income</u>
Call options written	Options	\$343	\$(1)

9. Investment Transactions

For the fiscal year ended November 30, 2018, the Fund purchased and sold securities in the amounts of \$136,940 and \$130,386 (excluding short-term investments and options).

10. Credit Facility and Term Loan

In connection with the merger with KYE (see Note 1), the Fund assumed KYE's \$75,000 Credit Facility. The Credit Facility has a 364-day term maturing on February 15, 2019. The interest rate varies between LIBOR plus 1.30% and LIBOR plus 1.95%, depending on the Fund's asset coverage ratios. The Fund pays a fee of

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
NOTES TO FINANCIAL STATEMENTS
(amounts in 000's, except number of option contracts, share and per share amounts)

0.20% per annum on any unused amounts. On August 6, 2018, the Fund terminated its pre-merger \$75,000 unsecured revolving credit facility (the "KMF Credit Facility"). The KMF Credit Facility was scheduled to mature on November 9, 2018.

For the fiscal year ended November 30, 2018, the average amount outstanding under the credit facilities was \$7,148 with a weighted average rate of 3.52%. As of November 30, 2018, the Fund had \$24,000 outstanding under the Credit Facility at an interest rate of 3.61%.

At November 30, 2018, the Fund had a \$35,000 unsecured revolving term loan (the "Term Loan"). The Term Loan has a five-year commitment maturing on July 25, 2019, and borrowings under the Term Loan accrue interest at a rate of LIBOR plus 1.50%. The Fund 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 fiscal year ended November 30, 2018, the average amount outstanding under the Term Loan was \$1,022 with a weighted average interest rate of 3.49%. As of November 30, 2018, the Fund had no borrowings outstanding under the Term Loan.

As of November 30, 2018, the Fund was in compliance with all financial and operational covenants required by the Credit Facility and Term Loan. See Financial Highlights for the Fund's asset coverage ratios under the 1940 Act.

11. Notes

At November 30, 2018, the Fund had \$200,923 aggregate principal amount of Notes outstanding. As part of the merger with KYE, the Fund issued Series F, G, H, I and J Notes with terms identical to the previous KYE Series I, J, K, L, and M Notes, respectively. See Note 1. The Fund redeemed all its Series F Notes upon maturity on August 8, 2018. The table below sets forth the key terms of each series of Notes outstanding at November 30, 2018.

Series	Principal Outstanding November 30, 2017	Principal Issued	Principal Redeemed	Principal Outstanding November 30, 2018	Unamortized Issuance Costs	Estimated Fair Value November 30, 2018	Fixed Interest Rate	Maturity
C	\$21,000	\$ —	\$ —	\$ 21,000	\$ 59	\$21,100	4.00%	3/22/22
D	40,000	—	—	40,000	159	39,100	3.34%	5/1/23
E	30,000	—	—	30,000	98	29,800	3.46%	7/30/21
F	—	5,077	(5,077)	—	—	—	2.59%	8/8/18
G	—	24,538	—	24,538	48	24,400	3.07%	8/8/20
H	—	42,308	—	42,308	162	42,100	3.72%	8/8/23
I	—	38,077	—	38,077	172	37,600	3.82%	8/8/25
J	—	5,000	—	5,000	2	5,000	3.36%	10/7/21
	<u>\$91,000</u>	<u>\$115,000</u>	<u>\$(5,077)</u>	<u>\$200,923</u>	<u>\$700</u>	<u>\$199,100</u>		

Holders of the Notes Series C, D and E are entitled to receive cash interest payments semi-annually (on September 3 and March 3) at the fixed rate. Holders of the Notes Series G, H, I and J are entitled to receive cash interest payments semi-annually (on August 13 and February 13) at the fixed rate. As of November 30, 2018, the weighted average interest rate on the outstanding Notes was 3.57%.

As of November 30, 2018, each series of Notes was rated "AAA" by FitchRatings. In the event the credit rating on any series of Notes falls below "A-", the interest rate on such series will increase by 1% during the period of time such series is rated below "A-". The Fund 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,

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
NOTES TO FINANCIAL STATEMENTS
(amounts in 000's, except number of option contracts, share and per share amounts)

liens and limits on the Fund's overall leverage. Under the 1940 Act and the terms of the Notes, the Fund 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 senior securities representing indebtedness (including the Notes) would be less than 300%.

The Notes are redeemable in certain circumstances at the option of the Fund. The Notes are also subject to a mandatory redemption to the extent needed to satisfy certain requirements if the Fund 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 Fund's rating agency guidelines in a timely manner.

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

At November 30, 2018, the Fund was in compliance with all covenants under the agreements of the Notes.

12. Preferred Stock

At November 30, 2018, the Fund had 3,000,000 shares of MRP Shares outstanding, with a total liquidation value of \$75,000 (\$25.00 per share). As part of the merger with KYE, the Fund issued Series D and Series E MRP Shares with terms identical to the previous KYE Series C and Series D MRP Shares, respectively. See Note 1. The table below sets forth the key terms of each series of MRP Shares outstanding at November 30, 2018.

Series	Liquidation Value November 30, 2017	Liquidation Value Issued	Liquidation Value November 30, 2018	Unamortized Issuance Costs	Estimated Fair Value November 30, 2018	Rate	Mandatory Redemption Date
C	\$35,000	\$ —	\$35,000	\$185	\$34,300	4.06%	7/30/21
D	—	20,000	20,000	187	19,300	3.36%	9/7/21
E	—	20,000	20,000	322	19,100	4.07%	11/29/24
	<u>\$35,000</u>	<u>\$40,000</u>	<u>\$75,000</u>	<u>\$694</u>	<u>\$72,700</u>		

Holders of the 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).

As of November 30, 2018, the Fund's series C, D and E MRP Shares were rated "A" by FitchRatings. The dividend rate on the Fund's MRP Shares will increase between 0.5% and 4.0% if the credit rating is downgraded below "A" by FitchRatings. 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 Fund fails to make quarterly dividend or certain other payments. The Fund is required to maintain a current rating from one rating agency with respect to each series of MRP Shares.

The MRP Shares rank senior to all of the Fund'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 Fund and are also subject to a mandatory redemption if the Fund 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 Fund's rating agency guidelines.

Under the terms of the MRP Shares, the Fund 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 total leverage would be less than 225% or the Fund would fail to maintain its basic maintenance amount as stated in the Fund's rating agency guidelines.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
NOTES TO FINANCIAL STATEMENTS
(amounts in 000's, except number of option contracts, share and per share amounts)

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 Fund.

At November 30, 2018, the Fund was in compliance with the asset coverage and basic maintenance requirements of its MRP Shares.

13. Common Stock

At November 30, 2018, the Fund had 197,000,000 shares of common stock authorized and 48,878,499 shares outstanding. As of November 30, 2018, KAFA owned 4,000 shares of the Fund. Transactions in common stock for the fiscal year ended November 30, 2018 were as follows:

Shares outstanding at November 30, 2017	22,034,170
Shares issued through merger with KYE (See Note 1)	<u>26,844,329</u>
Shares outstanding at November 30, 2018	<u>48,878,499</u>

14. Subsequent Events

On December 14, 2018, the Fund declared monthly distributions of \$0.075 per common share to be paid on January 31, February 28, and March 29 of 2019.

On December 31, 2018, the Fund paid its previously declared monthly distribution of \$0.10 per common share. Of the total distribution of \$4,888, pursuant to the Fund's dividend reinvestment plan, \$414 was reinvested into the Fund through open market purchases of common stock.

On January 11, 2019, KAFA announced that Kevin S. McCarthy plans to step down as Chief Executive Officer of the Fund in June 2019 and as Chairman of the Board in June 2020. The Board of Directors of the Fund intends to elect James C. Baker as Chief Executive Officer of the Fund effective July 1, 2019.

The Fund 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 MIDSTREAM/ENERGY FUND, INC.
GLOSSARY OF KEY TERMS
(UNAUDITED)

This glossary contains definitions of certain key terms, as they are used in our investment objective and policies and as described in this report. These definitions may not correspond to standard sector definitions.

“Energy Assets” means assets that are used in the energy sector, including assets used in exploring, developing, producing, generating, transporting, transmitting, storing, gathering, processing, refining, distributing, mining or marketing of natural gas, natural gas liquids, crude oil, refined products, coal or electricity.

“Energy Companies” means companies that own and operate Energy Assets or provide energy-related services. For purposes of this definition, this includes companies that (i) derive at least 50% of their revenues or operating income from operating Energy Assets or providing services for the operation of such Energy Assets or (ii) have Energy Assets that represent the majority of their assets.

“General Partner MLPs” means Master Limited Partnerships whose assets consist of ownership interests of an affiliated Master Limited Partnership (which may include general partnership interests, incentive distribution rights, common units and subordinated units).

“Master Limited Partnerships” or *“MLPs”* means limited partnerships and limited liability companies that are publicly traded and are treated as partnerships for federal income tax purposes, includes Midstream MLPs and other MLPs.

“Midstream Assets” means assets used in energy logistics, including, but not limited to, assets used in transporting, storing, gathering, processing, distributing, or marketing of natural gas, natural gas liquids, crude oil or refined products.

“Midstream Companies” means companies that own and operate Midstream Assets and are taxed as corporations for federal income tax purposes, including MLP Affiliates of Midstream MLPs. This includes companies structured like MLPs, but not treated as a publicly-traded partnership for RIC qualification purposes as well as MLP Affiliates of Midstream MLPs. For purposes of this definition, this includes companies that (i) derive at least 50% of their revenue or operating income from operating Midstream Assets or (ii) have Midstream Assets that represent the majority of their assets.

“Midstream/Energy Sector” consists of (a) Midstream MLPs, (b) Midstream Companies, (c) Other MLPs and (d) Other Energy Companies.

“Midstream Sector” consists of (a) Midstream MLPs and (b) Midstream Companies.

“Midstream MLPs” means MLPs that principally own and operate Midstream Assets including General Partner MLPs whose assets consist of ownership interests of an affiliated Midstream MLP.

“MLP Affiliates” means affiliates of Master Limited Partnerships, substantially all of whose assets consist of i-units or other ownership interests in Master Limited Partnerships. MLP Affiliates are not treated as partnerships for federal income tax purposes.

“Other Energy Companies” means Energy Companies, excluding MLPs and Midstream Companies.

“Other MLPs” consists of (a) upstream MLPs, (b) coal MLPs, (c) propane MLPs and (d) MLPs that operate other energy assets or provide energy-related services.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Kayne Anderson Midstream/Energy Fund, Inc.

Opinion on the Financial Statements

We have audited the accompanying statement of assets and liabilities, including the schedule of investments, of Kayne Anderson Midstream/Energy Fund, Inc. (the “Fund”) as of November 30, 2018, the related statements of operations and cash flows for the year ended November 30, 2018, the statement of changes in net assets applicable to common stockholders for each of the two years in the period ended November 30, 2018, including the related notes, and the financial highlights for each of the periods indicated therein (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Fund as of November 30, 2018, the results of its operations and its cash flows for the year then ended, the changes in its net assets for each of the two years in the period ended November 30, 2018 and the financial highlights for each of the periods indicated therein in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Fund’s management. Our responsibility is to express an opinion on the Fund’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Fund in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our procedures included confirmation of securities owned as of November 30, 2018 by correspondence with the custodian and brokers. We believe that our audits provide a reasonable basis for our opinion.

/s/PricewaterhouseCoopers LLP
Los Angeles, CA
January 25, 2019

We have served as the auditor of one or more investment companies in the Kayne Anderson Funds Family since 2004.

**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
 PRIVACY POLICY NOTICE
 (UNAUDITED)**

Rev. 01/2011

FACTS	WHAT DOES KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC. (“KMF”) DO WITH YOUR PERSONAL INFORMATION?
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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.
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What?	<p>The types of personal information we collect and share depend on the product or service you have with us. This information can include:</p> <ul style="list-style-type: none"> ■ Social Security number and account balances ■ Payment history and transaction history ■ Account transactions and wire transfer instructions <p>When you are <i>no longer</i> our customer, we continue to share your information as described in this notice.</p>
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How?	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 KMF chooses to share; and whether you can limit this sharing.
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Reasons we can share your personal information	Does KMF share?	Can you limit this sharing?
For our everyday business purposes — such as to process your transactions, maintain your account(s), respond to court orders and legal investigations, or report to credit bureaus	Yes	No
For our marketing purposes — to offer our products and services to you	No	No
For joint marketing with other financial companies	No	We don’t share
For our affiliates’ everyday business purposes — information about your transactions and experiences	No	We don’t share
For our affiliates’ everyday business purposes — information about your creditworthiness	No	We don’t share
For nonaffiliates to market to you	No	We don’t share

Questions?	Call 877-657-3863 or go to www.kaynefunds.com
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**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
 PRIVACY POLICY NOTICE
 (UNAUDITED)**

Who we are	
Who is providing this notice?	KMF
What we do	
How does KMF protect my personal information?	<p>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.</p> <p>Access to your personal information is on a need-to-know basis. KMF has adopted internal policies to protect your non-public personal information.</p>
How does KMF collect my personal information?	<p>We collect your personal information, for example, when you</p> <ul style="list-style-type: none"> ■ Provide account information ■ Buy securities from us or make a wire transfer ■ Give us your contact information <p>We also collect your personal information from other companies.</p>
Why can't I limit all sharing?	<p>Federal law gives you the right to limit only</p> <ul style="list-style-type: none"> ■ 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 <p>State laws and individual companies may give you additional rights to limit sharing.</p>
Definitions	
Affiliates	<p>Companies related by common ownership or control. They can be financial and nonfinancial companies.</p> <ul style="list-style-type: none"> ■ <i>KMF does not share with our affiliates.</i>
Nonaffiliates	<p>Companies not related by common ownership or control. They can be financial and nonfinancial companies.</p> <ul style="list-style-type: none"> ■ <i>KMF does not share with nonaffiliates so they can market to you.</i>
Joint marketing	<p>A formal agreement between nonaffiliated financial companies that together market financial products or services to you.</p> <ul style="list-style-type: none"> ■ <i>KMF doesn't jointly market.</i>
Other important information	
None.	

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
DIVIDEND REINVESTMENT PLAN
(UNAUDITED)

Kayne Anderson Midstream/Energy Fund, Inc., a Maryland corporation (the “Fund”), 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 Fund, 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 Fund 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 Fund’s Common Stock one day prior to the dividend payment date.

4. The Board may, in its sole discretion, instruct the Fund to purchase shares of its Common Stock in the open market in connection with the implementation of the Plan as follows: If the Fund’s Common Stock is trading below net asset value at the time of valuation, upon notice from the Fund, 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 Fund 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 Fund 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 Fund, 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 Fund issues 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 Fund because the Fund 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 Fund.

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 Fund’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 and a check for any fractional share less a broker commission on the sale of such fractional shares. If a

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
DIVIDEND REINVESTMENT PLAN
(UNAUDITED)

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 Fund, 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 Fund's shares at the time of termination.

9. The Plan Administrator will forward to each Participant any Fund related proxy solicitation materials and each Corporation 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 Fund.

10. In the event that the Fund 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 Fund.

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 Fund 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 Fund. 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 Fund 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 Fund will be authorized to pay to such successor agent, for each Participant's account, all dividends and distributions payable on shares of the Fund 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.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
DIVIDEND REINVESTMENT PLAN
(UNAUDITED)

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: November 18, 2010

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
INFORMATION CONCERNING DIRECTORS AND CORPORATE OFFICERS
(UNAUDITED)

Independent Directors⁽¹⁾

Name⁽²⁾ (Year Born)	Position(s) Held with Fund, Term of Office/Time of Service	Principal Occupations During Past Five Years	Other Directorships Held by Director/Officer During Past Five Years
William R. Cordes (born 1948)	Director. Revised term as a director until the 2020 Annual Meeting of Stockholders. Served since inception	Retired from Northern Border Pipeline Company in March 2007 after serving as President from October 2000 to March 2007. Chief Executive Officer of Northern Border Partners, L.P. from October 2000 to April 2006. President of Northern Natural Gas Company from 1993 to 2000. President of Transwestern Pipeline Company from 1996 to 2000.	Current: <ul style="list-style-type: none"> • Kayne Anderson MLP/Midstream Investment Company (“KYN”) • Boardwalk Pipeline Partners, LP (midstream MLP) Prior: <ul style="list-style-type: none"> • Kayne Anderson Energy Development Company (“KED”) • Northern Border Partners, L.P. (midstream MLP)
Anne K. Costin (born 1950)	New term director until the 2019 Annual Meeting of Stockholders	Professor at the Amsterdam Institute of Finance from 2007 through 2013. Adjunct Professor in the Finance and Economics Department of Columbia University Graduate School of Business in New York from 2004 through 2007. As of March 1, 2005, Ms. Costin retired after a 28-year career at Citigroup. During the seven years prior to her retirement, Ms. Costin was Managing Director and Global Deputy Head of the Project & Structured Trade Finance product group within Citigroup’s Investment Banking Division.	Current: <ul style="list-style-type: none"> • KYN Prior: <ul style="list-style-type: none"> • Kayne Anderson Energy Total Return Fund, Inc. (“KYE”)
Barry R. Pearl (born 1949)	Director. Revised term as a director until the 2020 Annual Meeting of Stockholders. Served since inception	Management consultant to Northstar Midstream, a private developer and operator of petroleum infrastructure assets from March 2016 to July 2018. Executive Vice President of Kealine, LLC, (and its affiliate WesPac Midstream LLC an energy infrastructure developer), from February 2007 to March 2016. Provided management consulting services from January 2006 to February 2007. President of Texas Eastern Products Pipeline Company, LLC (“TEPPCO”), (the general partner of TEPPCO Partners, L.P.,) from February 2001 to December 2005. Chief Executive Officer and director of TEPPCO from May 2002 to December 2005; and Chief Operating Officer from February 2001 to May 2002.	Current: <ul style="list-style-type: none"> • KYN • Magellan Midstream Partners, L.P. (midstream MLP) Prior: <ul style="list-style-type: none"> • KED • Peregrine Midstream Partners LLC (natural gas storage) • Seaspan Corporation (containership chartering) • Targa Resources Partners LP (midstream MLP) • TEPPCO Partners, L.P. (midstream MLP)
Albert L. Richey (born 1949)	Director. 3-year term (until the 2019 Annual Meeting of Stockholders)/ served since inception	Retired from Anadarko Petroleum Corporation in August 2016 after serving as Senior Vice President Finance and Treasurer from January 2013 to August 2016; Vice President Special Projects from January 2009 to December 2012; Vice President Corporate Development from 2006 to December 2008; Vice President and Treasurer from 1995 to 2005 and Treasurer from 1987 to 1995.	Current: <ul style="list-style-type: none"> • KYN Prior: <ul style="list-style-type: none"> • KED • Boys & Girls Clubs of Houston • Boy Scouts of America

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
INFORMATION CONCERNING DIRECTORS AND CORPORATE OFFICERS
(UNAUDITED)

Independent Directors⁽¹⁾

Name⁽²⁾ (Year Born)	Position(s) Held with Fund, Term of Office/Time of Service	Principal Occupations During Past Five Years	Other Directorships Held by Director/Officer During Past Five Years
William H. Shea, Jr. (born 1954)	New term director until the 2021 Annual Meeting of Stockholders	Chief Executive Officer of Mainline Energy Partners, LLC since July 2016. Chief Executive Officer and President of Niska Gas Storage Partners LLC from May 2014 to July 2016. Chief Executive Officer of the general partner of PVR Partners, L.P. (PVR) from March 2010 to March 2014. Chief Executive Officer and President of the general partner of Penn Virginia GP Holdings, L.P. (PVG), from March 2010 to March 2011. Private investor from June 2007 to March 2010. From September 2000 to June 2007, President, Chief Executive Officer and Director (Chairman from May 2004 to June 2007) of Buckeye Partners L.P. (BPL). From May 2004 to June 2007, President, Chief Executive Officer and Chairman of Buckeye GP Holdings L.P. (BGH) and its predecessors.	<ul style="list-style-type: none"> • Current: • KYN • Mainline Energy Partners, LLC (midstream energy) • USA Compression Partners, LP (natural gas compression MLP) Prior: <ul style="list-style-type: none"> • KYE • BGH (general partner of BPL) • BPL (midstream MLP) • Gibson Energy ULC (midstream energy) • Niska Gas Storage Partners LLC (natural gas storage) • PVG (owned general partner of PVR) • PVR (midstream MLP) • Penn Virginia Corporation (oil and gas exploration and production company)
William L. Thacker (born 1945)	Director. 3-year term (until the 2021 Annual Meeting of Stockholders)/served since inception	Chairman of the Board of Directors of Copano Energy, L.L.C. from 2009 to 2013. Retired from the Board of TEPPCO in May 2002 after serving as Chairman from March 1997 to May 2002; Chief Executive Officer from January 1994 to May 2002; and President, Chief Operating Officer and Director from September 1992 to January 1994.	Current: <ul style="list-style-type: none"> • KYN • QEP Resources Inc. (oil and gas exploration and production company) Prior: <ul style="list-style-type: none"> • KED • Copano Energy, L.L.C. (midstream MLP) • GenOn Energy, Inc. (electricity generation and sales) • Pacific Energy Partners, L.P. (midstream MLP) • TEPPCO Partners, L.P. (midstream MLP)

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
INFORMATION CONCERNING DIRECTORS AND CORPORATE OFFICERS
(UNAUDITED)

Interested Directors and Non-Director Officers

Name⁽²⁾ (Year Born)	Position(s) Held with Fund, Term of Office/Time of Service	Principal Occupations During Past Five Years	Other Directorships Held by Director/Officer During Past Five Years
Kevin S. McCarthy ⁽³⁾ (born 1959)	Chairman of the Board of Directors and Chief Executive Officer. 3-year term as a director (until the 2021 Annual Meeting of Stockholders), elected annually as an officer/ served since inception	Managing Partner of KACALP since June 2004 and Co-Managing Partner of KAFA since 2006. Chief Executive Officer of KYN; since inception (2004); KYE from inception in 2005 through merger (August 2018); and KED from inception in 2006 through merger (August 2018).	Current: <ul style="list-style-type: none"> • KYN • Altus Midstream Company (midstream company) Prior: <ul style="list-style-type: none"> • KYE • KED • Clearwater Natural Resources, L.P. (coal mining) • Direct Fuels Partners, L.P. (transmix refining and fuels distribution) • Emerge Energy Services LP (frac sand MLP) • International Resource Partners LP (coal mining) • K-Sea Transportation Partners LP (shipping MLP) • ONEOK, Inc. (midstream company) • ProPetro Services, Inc. (oilfield services) • Range Resource Corporation (oil and gas exploration and production company)
James C. Baker (born 1972)	New director to serve until the 2019 Annual Meeting of Stockholders. President since June 2016. Executive Vice President from inception to June 2016. Elected annually/ served since inception	Senior Managing Director of KACALP and KAFA since February 2008. President of KYN since June 2016 and of KYE and KED from June 2016 through merger (August 2018). Executive Vice President of KYN, KYE and KED from June 2008 to June 2016.	Current: <ul style="list-style-type: none"> • KYN Prior: <ul style="list-style-type: none"> • KED • K-Sea Transportation Partners LP (shipping MLP) • Petris Technology, Inc. (data management for energy companies) • ProPetro Services, Inc. (oilfield services)
J.C. Frey (born 1968)	Executive Vice President. Elected annually/served since inception	Managing Partner of KACALP since 2004 and Co-Managing Partner of KAFA since 2006. Executive Vice President of KYN since June 2008 and of KYE and KED from June 2008 through merger (August 2018). Assistant Secretary and Assistant Treasurer of KYN from 2004 to January 2019; of KYE from 2005 through merger (August 2018), and of KED from 2006 through merger (August 2018).	None
Terry A. Hart (born 1969)	Chief Financial Officer, Treasurer and Assistant Secretary. Elected annually/served since inception	Managing Director of KACALP since December 2005 and Chief Financial Officer of KAFA since 2006. Chief Financial Officer and Treasurer of KYN since December 2005; KYE from December 2005 through merger (August 2018); and KED from September 2006 through merger (August 2018). Assistant Secretary since January 2019. Chief Financial Officer of Kayne Anderson Acquisition Corp. from December 2016 to November 2018.	Current: <ul style="list-style-type: none"> • The Source for Women (not-for-profit organization) Prior: <ul style="list-style-type: none"> • KED

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
INFORMATION CONCERNING DIRECTORS AND CORPORATE OFFICERS
(UNAUDITED)

Interested Directors and Non-Director Officers

Name⁽²⁾ (Year Born)	Position(s) Held with Fund, Term of Office/Time of Service	Principal Occupations During Past Five Years	Other Directorships Held by Director/Officer During Past Five Years
Ron M. Logan, Jr. (born 1960)	Senior Vice President Elected annually/served since September 2012	Senior Managing Director of KACALP and Kafa since February 2014. Managing Director of KACALP and Kafa from September 2006 to February 2014. Senior Vice President of KYN since September 2012, KED from September 2006 through merger (August 2018) and KYE from September 2012 through merger (August 2018).	Prior: • VantaCore Partners LP (aggregates MLP)
Jody C. Meraz (born 1978)	Senior Vice President. Elected annually. Elected annually/served since June 2011	Managing Director of KACALP and Kafa since February 2014. Senior Vice President of KACALP and Kafa from 2011 to February 2014. Vice President of KYN since 2011 and of KYE and KED from 2011 through merger (August 2018).	None
Alan R. Boswell (born 1978)	Vice President. Elected annually/served since September 2017	Managing Director of KACALP and Kafa since January 2018. Senior Vice President of KACALP and Kafa from July 2014 to January 2018. Vice President of KACALP and Kafa from 2012 to July 2014. Vice President of KYN since 2017 and of KYE and KED from 2017 through merger (August 2018).	None
A. Colby Parker (born 1987)	Assistant Treasurer, Elected annually/served since January 2019	Assistant Treasurer of KYN since January 2019. Controller of Kafa since July 2015. Finance and Treasury Analyst of Kafa from June 2014 to June 2015.	None
Michael J. O'Neil (born 1983)	Chief Compliance Officer. Elected annually/served since December 2013	Chief Compliance Officer of KACALP and Kafa since March 2012 and of KYN since December 2013 and of KED and KYE from December 2013 through merger (August 2018) and KA Associates, Inc. (broker-dealer) since January 2013. A Compliance Officer at BlackRock Inc. from January 2008 to February 2012.	None
David J. Shladovsky (born 1960)	Secretary. Elected annually/served since inception	General Counsel of KACALP since 1997 and of Kafa since 2006. Secretary and Chief Compliance Officer (through December 2013) of KYN since 2004; of KYE from 2005 through merger (August 2018), and of KED from 2006 through merger (August 2018).	None

- (1) The 1940 Act requires the term “Fund Complex” to be defined to include registered investment companies advised by Kafa, the Fund’s investment advisor, and the Fund Complex includes the Fund, and KYN. Each Independent Director oversees two registered investment companies in the Fund Complex, the Fund and KYN, as noted above.
- (2) The address of each director and corporate officer is c/o KA Fund Advisors, LLC, 811 Main Street, 14th Floor, Houston, Texas, 77002.
- (3) Mr. McCarthy is an “interested person” of the Fund as defined by the 1940 Act by virtue of his employment relationship with Kafa.

Additional information regarding the Fund’s directors is contained in the Fund’s Statement of Additional Information, the most recent version of which can be found on the Fund’s website at www.kaynefunds.com or is available without charge, upon request, by calling (877) 657-3863.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
ANNUAL CERTIFICATION
(UNAUDITED)

The Fund's Chief Executive Officer has filed an annual certification with the NYSE that, as of the date of the certification, he was unaware of any violation by the Fund of the NYSE's corporate governance listing standards.

PROXY VOTING AND PORTFOLIO HOLDINGS INFORMATION
(UNAUDITED)

The policies and procedures that the Fund 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 Fund's website, *www.kaynefunds.com*; and
- on the SEC's website, *www.sec.gov*.

Information regarding how the Fund 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 *www.sec.gov* (see Form N-PX).

The Fund 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 Fund's Form N-Q and Form N-30B-2 are available on the SEC's website at *www.sec.gov*. The Fund also makes its Form N-Q and Form N-30B-2 available on its website at *www.kaynefunds.com*.

REPURCHASE DISCLOSURE
(UNAUDITED)

Notice is hereby given in accordance with Section 23(c) of the 1940 Act, that the Fund 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.

Directors and Corporate Officers

Kevin S. McCarthy

Chairman of the Board of Directors
and Chief Executive Officer

William R. Cordes

Director

Anne K. Costin

Director

Barry R. Pearl

Director

Albert L. Richey

Director

William H. Shea, Jr

Director

William L. Thacker

Director

James C. Baker

Director and President

Terry A. Hart

Chief Financial Officer, Treasurer and Assistant Secretary

David J. Shladovsky

Secretary

Michael J. O'Neil

Chief Compliance Officer

J.C. Frey

Executive Vice President

Ron M. Logan, Jr.

Senior Vice President

Jody C. Meraz

Senior Vice President

Alan R. Boswell

Vice President

A. Colby Parker

Assistant Treasurer

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 www.kaynefunds.com or call us toll-free at 1-877-657-3863.

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