

# Kayne Anderson

*Midstream/Energy Fund*



**KMF Annual Report**  
November 30, 2016

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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.**  
**LETTER TO STOCKHOLDERS**

January 27, 2017

Dear Fellow Stockholders:

It is difficult to describe how pleased I am to have 2016 behind us. While it was a very successful year for the Fund in terms of performance, it was also an extremely challenging year, especially during the first quarter of 2016. Since the most difficult days of January and February of 2016, the market has improved materially, and I am confident in saying that the worst is clearly behind us. When I wrote last year's letter, the Alerian MLP index, or AMZ, had already declined 19% for the fiscal year, and it would go on to decline another 18% to an intraday low of 199 on February 11<sup>th</sup>. On that day, crude oil prices also hit a multi-year low of \$26 per barrel, nearly \$10 below the lowest price we saw during the 2008-2009 financial crisis. At the same time, as we noted in last year's letter, investors were asking some very serious questions about the state of the domestic energy industry, including the continued viability of the MLP model, as well as the Upstream sector's ability to cope with a "lower for longer" crude oil price scenario. Over the course of the past 12 months, many of the fears that investors had about the domestic energy industry have been allayed.

As we turn the page to 2017, we start the year with an optimistic outlook. We have maintained our bias toward midstream MLPs and Midstream Companies (approximately 68% of our investments as of November 30, 2016), as we believe these subsectors will generate the most attractive returns, with the remainder of our portfolio primarily allocated to Marine Transportation (15%) and Energy Debt (14%). Prospects for the domestic energy industry are much improved, which bodes well for these investments. We, like everyone else, are carefully watching the new administration's actions to get a better sense of its proposed policies. It is too early to say with certainty what the next four years in Washington will bring, but our expectation is that it will bring more positives than negatives for our target investments and believe the next few years will provide a very constructive backdrop for the domestic energy industry. We believe the Fund's investment mandate, which targets a diversified portfolio of income producing securities in the Midstream/Energy sector, is well situated to thrive in the current environment.

**Performance Review**

Coming off of a very challenging 2015, which was one of the worst years in the Fund's history, we are pleased to report that the Fund performed very well in fiscal 2016. From the lows in February, our net asset value per share increased by over 135%. For the fiscal year, our Net Asset Value Return, which is equal to the change in net asset value per share plus the cash distributions paid during the period (assuming reinvestment through our dividend reinvestment program) was 12.7%. During the same period, the total return of the AMZ was 9.3%. We are very pleased to have outperformed the AMZ during fiscal 2016, and we believe that the Fund's portfolio is well positioned to outperform as market conditions continue to improve. Though it is always challenging to compare the Fund's performance to a benchmark because the Fund invests in multiple energy-related subsectors, we believe the AMZ is a good benchmark given the Fund's focus on Midstream investments (both MLPs and Midstream Companies). Another measure of the Fund's performance is Market Return (share price change plus reinvested dividends), which was 12.7% for fiscal 2016. This measure was in line with our Net Asset Value Return, as our stock price began and ended the year trading at a 12% discount to NAV. The trading relationship of the Fund's stock price and NAV is something we monitor very closely. To the extent the discount to NAV remains greater than 10%, we will review the merits of a stock buyback program with our Board of Directors.

In addition to generating a strong return for the year, I am also proud of how our team navigated a very challenging market. During the first three months of fiscal 2016, we experienced extreme volatility and very rapid declines in the market. In response, we prudently sold securities to raise cash and decrease the Fund's leverage levels. During the first quarter of fiscal 2016, the Fund redeemed \$94 million of notes and \$35 million of mandatory redeemable preferred stock (MRPS). While we never want to be forced to de-lever, we were able to strategically redeem notes and MRPS in such a way that we maintained compliance with our leverage covenants

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and avoided a significant amount of early redemption penalties. As a result of our experience through this downturn, we increased our asset coverage targets as the market recovered to ensure that the Fund has more downside protection in the event of future market declines. Currently, our leverage levels are in line with these new targets.

Finally, we made the difficult decision to reduce the Fund's distribution twice during fiscal 2016 – first from \$0.51 per share to \$0.45 per share (distribution paid in January 2016) and then to \$0.35 per share (distribution paid in April 2016). The primary reasons for these reductions were the Kinder Morgan distribution cut, our deleveraging activity (selling higher yielding securities to redeem lower-cost leverage), significantly lower income from writing call options on the Fund's investments and merger activity in which lower yielding entities acquired higher yielding entities (resulting in lower distributions for the holders of the higher yielding entities). This last phenomenon, which we refer to as “back-door distribution cuts,” is a trend that has continued. In fact, the most recent example, the merger between Sunoco Logistics and Energy Transfer, was announced at the end of November 2016 and has yet to close.

Overall, it was a good year for the Fund in terms of both relative and absolute performance. We believe the actions that we took with the distribution and the balance sheet were prudent and necessary and that the Fund is on sound financial footing as a result.

**Energy Market — Year in Review**

The energy markets started 2016 in dire straits. When the market reached its low in the first quarter, crude oil prices were down 76% from the 2014 high of \$108 per barrel and natural gas prices had declined from over \$5/mcf to under \$1.50/mcf. At its low point in February, the AMZ was down 63% from its peak, capping off a vicious, nearly 18-month downturn. This downturn was longer and more severe than the 55% decline that the AMZ experienced during the 2008-2009 financial crisis. For Midstream Companies, the declines were equally severe, with an index of 18 Midstream Companies (the Midstream Index) down 58% over the same time period.

As we pointed out in last year's letter, we did not believe that these steep declines in equity prices for MLPs and Midstream Companies were justified by the fundamentals in the market. The Midstream sector (as we highlight in almost every annual letter) generally does not have direct exposure to crude oil prices and is primarily in the business of gathering, transporting and storing crude oil, natural gas and natural gas liquids, or NGLs. Unfortunately, we saw an unprecedented correlation between crude oil prices on the one hand and Midstream equity prices on the other (this was also the case for the broader market), as the decline in crude oil prices was by far the biggest driver of negative sentiment in the market.

Thankfully, we have seen the correlation to crude oil prices fall significantly over the last several months, and both MLPs and Midstream Companies have recovered significantly. While it was a very difficult start for fiscal 2016, the AMZ delivered a total return (including distributions) of 9%, while the Midstream Index generated a very attractive total return of 22%.

While MLPs and Midstream Companies should not have been trading so closely with crude oil, strong commodity prices (including crude oil) are important for their long-term health, as Upstream Companies need an economic price to produce the natural gas and oil that will supply the pipelines and storage assets owned by MLPs and Midstream Companies. As we described in last year's letter, we were convinced that crude oil prices were unsustainably low and that the fundamentals were in place for a recovery. Specifically, demand was projected to continue to grow, and Upstream Companies were significantly reducing capital expenditures, resulting in projected declines in domestic crude oil production. Most importantly, the global “over-supply” was not very large at around 1-2% of demand, so we knew that the market would come back into balance in the near-term. Today, domestic oil production has declined from 9.6 to 8.8 million barrels per day, and crude oil prices are trading in the \$50-\$55 per barrel range (double the February low), as prices are now reflecting the rebalancing of

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supply and demand. Admittedly, OPEC helped out the market in November by agreeing to cut production, but most experts believe this only accelerated the market rebalancing by about six months. In the meantime, the industry still has excess crude oil inventories to work through, so we expect continued price recovery through 2017 and 2018.

The MLP model for many years has been to pay out all free cash flow and finance acquisitions and growth expenditures in the capital markets. During the depths of the downturn, investors feared that the MLP “model” was broken. We asserted in last year’s letter that we did not think the model was broken and that we did not expect the capital markets to shut down for any material amount of time. As it turned out, institutional investors, including Kayne Anderson, stepped in to provide private financing for MLPs like Plains All American, Western Gas and MPLX in early 2016, and the regular-way public equity markets re-opened to issuers in March. During calendar 2016, there were 31 public equity offerings that raised over \$7 billion and seven private placements, primarily in the form of convertible preferred equity, that raised \$6 billion. As the year progressed, sentiment began to improve as management teams were very successful in cutting operating costs and delaying capital expenditures where possible, and as operating results continued to hold up better than expected.

As the market recovered, there were a few key themes that got investors excited about the Midstream sector again. First, investors pivoted with pretty amazing speed from being worried about significant declines in pipeline throughput (i.e. volumes) to focusing on the impact of production growth in key domestic shale basins. This transition evolved as it became clear during 2016 that Upstream Companies were doing significantly more with less capital, and that domestic production would be more resilient than originally expected. In particular, as Upstream Companies reported results and provided guidance, it became evident that the cumulative effect of lower oilfield service costs, improved drilling efficiency (how quickly a well can be drilled) and improved completion techniques (the fracking “recipe” to maximize well productivity) had dramatically lowered break-even prices (the commodity price needed by an Upstream Company to make an adequate return after spending capital). While many crude oil plays required prices in the \$70 to \$80 per barrel range in 2014 to be economic, by 2016 it was clear that many areas could be drilled economically at \$40 per barrel and below.

The most talked about area in the context of this trend has been the Permian Basin in west Texas and New Mexico. There has also been a lot of excitement around the SCOOP/STACK region in Oklahoma and the core areas of the Bakken. In the Permian, Upstream Companies have been aggressively acquiring acreage in the best areas, and the capital markets have been wide open for these companies to raise equity capital to finance these acreage acquisitions. In fact, during calendar 2016, Upstream Companies raised over \$30 billion of equity capital. This is quite the turnaround from the widespread belief that there would be mass bankruptcies for Upstream Companies during 2016 and was very constructive for our Energy Debt portfolio (as we will discuss in more detail later in this letter). A resumption of production growth (which we think is underway) will be very beneficial for the Midstream sector as well, especially for those with spare capacity on existing assets that will benefit from higher volumes with little incremental cost. Furthermore, this same dynamic is continuing to drive production growth for producers in natural gas plays like the Marcellus and Utica, and the MLPs and Midstream Companies that gather, process and transport this production will similarly benefit.

Another theme that received a lot of attention was the coming increase in ethane demand. Ethane makes up the largest portion of the typical NGL barrel and is used primarily for the production of ethylene, which in turn is used by petrochemical companies to produce plastics. From 2017 through 2020, several world-scale ethane crackers are slated to come on line, which should drive a step change in the demand for ethane in the U.S. Currently, the U.S. produces around 1.3 million barrels per day of ethane, and the vast majority of this production is consumed domestically by petrochemical companies. As the new ethane crackers are placed in service, domestic demand will increase by 40-50% over the next few years. For those MLPs and Midstream Companies that own processing plants, NGL pipelines, NGL fractionators and NGL export facilities, this increase in demand



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represents a huge opportunity, which is expected to be satisfied by increased domestic production and translate into higher utilization levels for these midstream assets.

Not all developments during 2016 were beneficial for the Midstream sector. For instance, we saw a much tougher regulatory environment in 2016. The poster child for increased regulatory difficulty has been the Bakken Pipeline Project, which includes the Dakota Access Pipeline (DAPL). This project is being pursued by a consortium of Midstream Companies, including Energy Transfer and Sunoco Logistics. Many of you have probably read news stories about DAPL protestors in North Dakota or seen protests on television or the internet (for example during a recent NFL game). In addition to garnering significant media attention, those who oppose projects like DAPL have become much more sophisticated in using the courts and the regulatory system to slow the approval process for new projects. While we expect DAPL to be completed during 2017, we do not expect the opponents of fossil fuels to be any less zealous in attempting any and every way to slow or stop projects. Accordingly, the ultimate cost and timeline for announced projects will continue to be more uncertain than it has been in the past.

Another trend that we have seen in the Midstream sector is the acceleration of “simplification transactions”, which are transactions where a Midstream Company and its related MLP combine or otherwise simplify their capital structure in an effort to lower the resulting entities’ cost of capital. We believe this trend is largely a result of the downturn in commodity prices (and the resulting increase in the cost of capital), which has created a “survival of the fittest” mindset. These transactions come in several different formats, and their impact on MLPs and Midstream Companies has varied based on the specific terms of the transaction. We believe that some of these transactions have been good for the general partner to the detriment of the MLP, while others have been good for both sets of shareholders. One of the benefits of these transactions for the Fund is an expansion of opportunities to invest in Midstream Companies that have many of the same business attributes as an MLP.

Before the downturn, the most common structure in the Midstream sector was for the MLP to own the midstream assets and the Midstream Company to serve as the general partner of the MLP. Several of the recent simplification transactions have involved the acquisition (or “roll-up”) of the MLP by the Midstream Company (i.e. the general partner acquires the underlying MLP). As a result, these Midstream Companies now own the midstream assets directly and are true operating companies. Examples of this type of transaction include Kinder Morgan’s acquisition of its underlying MLPs in 2014 and more recently, similar transactions by Targa Resources and SemGroup. In addition to roll-ups, there have also been simplification transactions whereby the MLP acquired the general partner and the incentive distribution rights from their respective Midstream Company parents, leaving the MLP outstanding and the Midstream Company parent as owner of limited partner interests in the MLP. Plains All American Pipeline and Williams Partners have completed these types of simplifications in the last few months.

One of the primary goals of these simplification transactions is to lower the cost of capital to the MLPs by eliminating the general partner’s incentive distribution rights (or IDRs). We believe that IDRs serve as a powerful incentive for the general partner of an MLP to increase distributions to its limited partners. In fact, for a long period of time, this structure has worked as intended, and most large cap MLPs have substantially increased their distributions to limited partners since their IPOs. However, as an MLP grows in size, the IDRs can become a burden and inhibit the MLP’s growth rate. As more MLPs pursue simplification transactions, crafting a permanent solution to the IDR burden will eventually become a competitive imperative for larger MLPs that have not addressed the issue.

One other trend worth mentioning is the increased presence of Canadian Midstream Companies in the U.S. During 2016, both TransCanada and Enbridge made major acquisitions of U.S. based Midstream Companies. In March, TransCanada announced the \$13 billion acquisition of Columbia Pipeline Group, and in September, Enbridge announced the \$50 billion acquisition of Spectra Energy. We think this speaks to the increasingly

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integrated nature of the North American energy market, as well as the attractive outlook for domestic midstream assets.

It was a difficult year for Marine Transportation MLPs, which generated a total return of negative 15% during fiscal 2016 (based on a market weighted index of 10 MLPs). Much of this performance was driven by steep declines in our fiscal first quarter in the wake of the 80% distribution cuts by Teekay Offshore and Teekay LNG. We avoided or were underweight some of the worst performers in the first quarter, and as a result, the Fund's Marine Transportation holdings performed much better than the index, delivering a double-digit total return for the year. With yields in the 9-10% area, we believe several Marine Transportation MLPs are poised for incremental recovery as investors look for higher yielding equities. We favor Marine Transportation MLPs that have multi-year contracts and have been overweight MLPs involved in the transportation of liquefied natural gas, or LNG. The operating cash flows of these MLPs have been steady through the downturn, and we expect operating cash flows will continue to improve as the market continues to recover. We are bullish about the long-term prospects for global demand growth in LNG and believe the growth in domestic liquefaction capacity over the next few years will be a positive catalyst for the market.

In the Energy Debt market, the first quarter was incredibly difficult, but the subsequent recovery has been astounding. Over the last few years, we have primarily invested in the debt of Upstream Companies, with an emphasis on companies that had large acreage positions in very good basins. These companies were disproportionately hurt during the downturn, and at this time last year, we were faced with several distressed holdings (including three issuers who had filed for bankruptcy). That said, the entire Upstream debt market was distressed. At the low in February, the high yield bonds of Upstream Companies (as measured by the BofA Merrill Lynch US High Yield Energy E&P Index, or BofA Index) were trading at a yield of over 30%, while 10-Year U.S. Treasury Bonds were yielding 1.64%, resulting in a "spread to Treasuries" of over 28%! As commodity prices rebounded, the energy high yield market recovered dramatically, and the BofA Index generated a 17% total return for fiscal 2016, after being down 35% in the first quarter. We were active in managing the Fund's challenged investments and deploying capital to those issuers with the most upside to the recovery. As a result, our fixed income portfolio performed much better than the BofA Index. Today, the spread to Treasuries for the BofA Index stands at 4.3%, and lower quality Upstream Companies have good access to the capital markets. The Fund's fixed income portfolio is fairly concentrated, focusing on Upstream Companies of reasonable quality that offer attractive yields. If market conditions continue to strengthen and get to levels we consider unsustainable, we will consider reducing our allocation to debt securities and increasing our equity holdings.

**Outlook**

The outlook for the energy sector into 2017 and beyond is very good. The worst part of the downturn is in the rearview mirror, and once again, the MLP model has survived. Although the MLP market is up an astounding 61% since the February lows, we believe that there is still room for additional, meaningful price appreciation. Currently, the AMZ stands at 320 and yields 7.0%. With 10-year U.S. Treasury Bonds currently yielding 2.47%, the MLP "spread to Treasuries" stands at 453 basis points. While this is much tighter than the 809 basis point spread as of last year's letter, it is still significantly higher than the long-term spread of ~300-350 basis points. In addition, MLPs look very attractive relative to other yield alternatives, with Utilities yielding 3.6% and REITs yielding 4.6%, and both MLPs and Midstream Companies also look compelling on traditional valuation metrics such as Enterprise Value to EBITDA and Price to Distributable Cash Flow multiples.


While we are optimistic for continued recovery for the energy sector, we expect that the rising tide will not necessarily lift all boats. Exposure to the right basins, prudent management teams and strong balance sheets will be the keys to success. Additionally, valuations among the different energy-related subsectors vary. We believe Upstream Companies' valuations are much further along in the recovery process than MLPs and Midstream

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Companies. As a result, we believe the Fund's focus on the Midstream sector will serve our investors well, as we believe these equity securities will generate the most attractive returns.

We know that it has not been a pleasant experience enduring this downturn, but we sincerely believe that patient, long-term investors in the Fund will be rewarded with very attractive returns over the next three to five years. We appreciate your investment in the Fund and look forward to executing on our business plan of achieving a high level of total returns by investing in MLPs, Midstream Companies and other energy companies. We invite you to visit our website at [kaynefunds.com](http://kaynefunds.com) for the latest updates.

Sincerely,

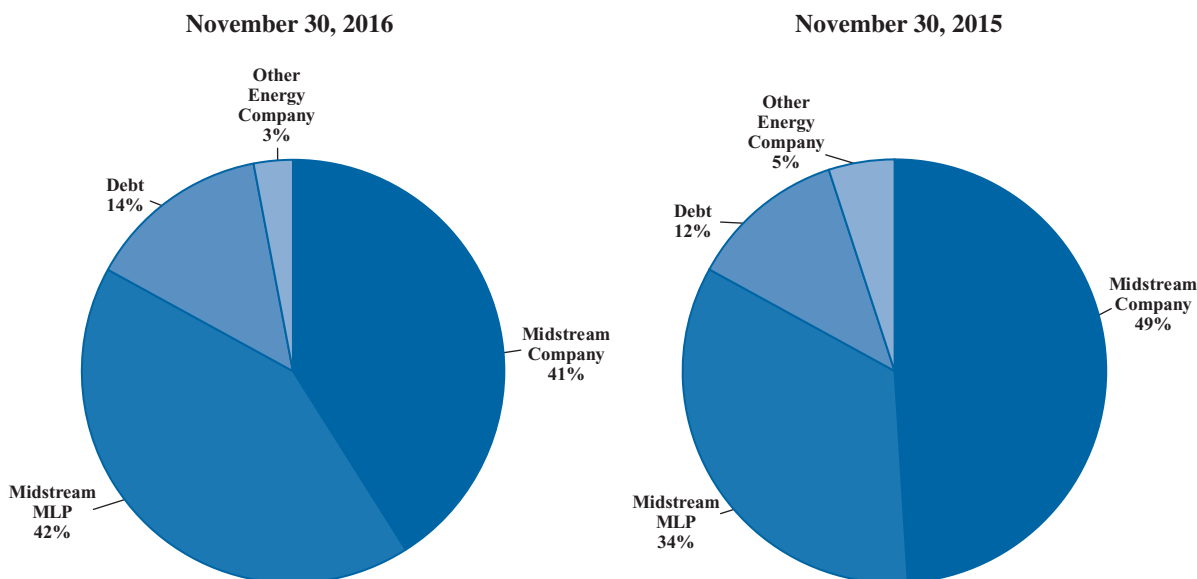
A handwritten signature in black ink that reads "Kevin S. McCarthy". The signature is written in a cursive, flowing style.

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<sup>(1)</sup>**



**Top 10 Holdings by Issuer**

Holding	Category <sup>(1)</sup>	Percent of Long Term Investments as of November 30,	
		2016	2015
1. Plains GP Holdings, L.P. <sup>(2)</sup>	Midstream MLP	8.9%	5.5%
2. Enbridge Energy Management, L.L.C.	Midstream MLP	8.2	8.9
3. ONEOK, Inc.	Midstream Company	7.3	3.8
4. Targa Resources Corp. <sup>(3)</sup>	Midstream Company	5.5	1.8
5. Dynagas LNG Partners LP	Midstream Company	3.8	2.7
6. KNOT Offshore Partners LP	Midstream Company	3.3	2.2
7. Golar LNG Partners LP	Midstream Company	3.1	1.9
8. Spectra Energy Corp. <sup>(4)</sup>	Midstream Company	3.1	2.8
9. GasLog Partners LP	Midstream Company	2.8	1.9
10. Energy Transfer Partners, L.P. <sup>(5)</sup>	Midstream MLP	2.8	4.2

- (1) See Glossary of Key Terms for definitions. Midstream Company category includes Midstream Companies engaged in marine transportation (15% as of November 30, 2016 and 12% as of November 30, 2015).
- (2) The percentages shown in the table include 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.
- (3) On February 17, 2016, Targa Resources Corp. (“TRGP”) completed its acquisition of Targa Resources Partners LP (“NGLS”). As of November 30, 2015, our investment in NGLS and TRGP represented 2.8% of long-term investments.

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**(UNAUDITED)**

- (4) On September 6, 2016, Enbridge Inc. (“ENB”) and Spectra Energy Corp. (“SE”) announced an agreement to combine in a stock-for-stock merger transaction. On a combined basis, ENB and SE represent 3.6% of long-term investments as of November 30, 2016.
- (5) On November 21, 2016, Energy Transfer Partners, L.P. (“ETP”) and Sunoco Logistics Partners L.P. (“SXL”) announced an agreement to combine in a unit-for-unit merger. On a combined basis, ETP and SXL represent 4.4% of long-term investments as of November 30, 2016.

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

**Fund Overview**

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

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

As of November 30, 2016, we had total assets of \$539 million, net assets applicable to our common stockholders of \$384 million (net asset value of \$17.41 per share), and 22.0 million shares of common stock outstanding. As of November 30, 2016, we held \$456 million in equity investments and \$77 million in debt investments.

**Results of Operations — For the Three Months Ended November 30, 2016**

*Investment Income.* Investment income totaled \$1.4 million for the quarter and consisted primarily of net dividends and distributions and interest income on our investments. We received \$7.5 million of dividends and distributions, of which \$8.1 million was treated as return of capital. Return of capital was increased by \$2.9 million during the quarter due to 2015 tax reporting information that was received in fiscal 2016. Interest income was \$2.0 million. We also received \$1.0 million of paid-in-kind dividends during the quarter, which are not included in investment income, but are reflected as an unrealized gain.

*Operating Expenses.* Operating expenses totaled \$3.4 million, including \$1.6 million of investment management fees, \$1.1 million of interest expense, \$0.4 million of preferred stock distributions and \$0.3 million of other operating expenses. Interest expense includes \$0.1 million of non-cash amortization of debt issuance costs. Preferred stock distributions include less than \$0.1 million of non-cash amortization of offering costs.

*Net Investment Loss.* Our net investment loss totaled \$2.0 million.

*Net Realized Gains.* We had net realized gains of \$1.3 million, which included \$0.3 million of net realized gains from option activity.

*Net Change in Unrealized Gains.* We had a net increase in unrealized gains of \$42.6 million. The net increase consisted of \$42.7 million of unrealized gains from investments and \$0.1 million of net unrealized losses from option activity.

*Net Increase in Net Assets Resulting from Operations.* We had an increase in net assets resulting from operations of \$41.9 million. This increase was comprised of net investment loss of \$2.0 million, net realized gains of \$1.3 million and a net increase in unrealized gains of \$42.6 million, as noted above.

**Results of Operations — For the Fiscal Year Ended November 30, 2016**

*Investment Income.* Investment income totaled \$17.8 million for the year and consisted primarily of net dividends and distributions and interest income on our investments. We received \$29.6 million of dividends and distributions, of which \$19.4 million was treated as return of capital. Return of capital was increased by \$2.9 million due to 2015 tax reporting information that was received in fiscal 2016. Interest income was \$7.6 million. We also received \$4.0 million of paid-in-kind dividends during the year, 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 \$19.2 million, including \$5.7 million of investment management fees, \$9.3 million of interest expense, \$2.8 million of preferred stock distributions and \$1.4 million of other operating expenses. Interest expense includes \$4.5 million of prepayment penalties and accelerated interest associated with unsecured notes (“Notes”) redemptions during fiscal 2016 and \$0.8 million of non-cash amortization and write-off of debt issuance costs. Preferred stock distributions include \$0.8 million of prepayment penalties and accelerated dividends associated with mandatory redeemable preferred stock (“MRP Shares”) redemptions during fiscal 2016 and \$0.4 million of non-cash amortization and write-off of offering costs.

*Net Investment Loss.* Our net investment loss totaled \$1.4 million.

*Net Realized Losses.* We had net realized losses of \$101.7 million, which includes \$1.1 million of net realized gains from option activity.

*Net Change in Unrealized Gains.* We had a net increase in unrealized gains of \$135.4 million. The net increase consisted of \$135.5 million of unrealized gains from investments and \$0.1 million of net unrealized losses from option activity.

*Net Increase in Net Assets Resulting from Operations.* We had an increase in net assets resulting from operations of \$32.3 million. This increase was comprised of net investment loss of \$1.4 million, net realized losses of \$101.7 million and a net increase in unrealized gains of \$135.4 million, as noted above.

**Distributions to Common Stockholders**

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

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

Operating expenses include (a) investment management fees paid to our investment adviser (KAFA), (b) other expenses (mostly comprised of fees paid to other service providers), (c) accrual for estimated excise taxes (if any) and (d) interest expense and preferred stock distributions.

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**MANAGEMENT DISCUSSION**  
**(UNAUDITED)**

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

	<b>Three Months Ended November 30, 2016</b>	<b>Fiscal Year Ended November 30, 2016</b>
<b>Distributions and Other Income from Investments</b>		
Dividends <sup>(1)</sup> . . . . .	\$ 7.5	\$29.6
Paid-In-Kind Dividends <sup>(1)</sup> . . . . .	1.0	4.0
Interest Income <sup>(2)</sup> . . . . .	2.1	8.0
Net Premiums Received from Call Options Written . . . . .	0.4	1.4
Total Distributions and Other Income from Investments . . . . .	11.0	43.0
<b>Expenses</b>		
Investment Management Fee . . . . .	(1.6)	(5.7)
Other Expenses . . . . .	(0.3)	(1.4)
Interest Expense <sup>(3)</sup> . . . . .	(1.0)	(8.6)
Preferred Stock Distributions <sup>(3)</sup> . . . . .	(0.4)	(2.5)
<b>Net Distributable Income (NDI)</b> . . . . .	<b>\$ 7.7</b>	<b>\$24.8</b>
Weighted Shares Outstanding . . . . .	22.0	22.0
<b>NDI per Weighted Share Outstanding</b> . . . . .	<b>\$0.35</b>	<b>\$1.13</b>
<b>Adjusted NDI per Weighted Share Outstanding<sup>(2)(3)(4)</sup></b> . . . . .	<b>\$0.35</b>	<b>\$1.39</b>
<b>Distributions paid per Common Share<sup>(5)</sup></b> . . . . .	<b>\$0.35</b>	<b>\$1.40</b>

- (1) See Note 2 Investment Income to the Financial Statements for additional information regarding paid-in-kind and non-cash dividends and distributions.
- (2) Interest income for the year reflects a \$0.4 million write-off related to our debt investments in Energy & Exploration Partners, Inc., Goodrich Petroleum Corporation and Midstates Petroleum Company, Inc. Adjusted NDI for the year excludes \$0.1 million of this write-off that is related to interest earned in the previous year.
- (3) Interest expense for the year includes \$4.5 million of prepayment penalties and accelerated interest related to the redemption of Notes in the first quarter of 2016. Preferred stock distributions for the year include \$0.8 million of prepayment penalties and accelerated dividends related to the redemption of MRP Shares in the first quarter of 2016. Adjusted NDI for the year excludes the prepayment penalties, accelerated interest and accelerated dividends related to these redemptions.
- (4) Adjusted NDI for the year includes \$0.4 million of consideration received in two mergers that was intended to offset lower quarterly distributions as a result of such transactions. The two transactions were the mergers of Energy Transfer Partners, L.P. and Regency Energy Partners LP (\$0.1 million), and MarkWest Energy Partners, L.P. and MPLX LP (\$0.3 million, \$0.1 million of which is included in the fourth quarter). Because the acquiring entity has deemed part of the merger consideration to be compensation to help offset the lower quarterly distribution that unitholders of the acquired entity would receive after closing, we believe it to be appropriate to include these amounts in Adjusted NDI. This merger consideration is not included in investment income for GAAP purposes, but rather is treated as additional consideration when calculating the realized or unrealized gain (loss) that results from the merger transaction.
- (5) The distribution of \$0.35 per share for the fourth quarter of fiscal 2016 was paid on January 13, 2017. Distributions for fiscal 2016 include the quarterly distributions paid in April 2016, July 2016, October 2016, and January 2017.

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

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

**Reconciliation of NDI to GAAP**

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

- GAAP recognizes that a significant portion of the cash distributions received from MLPs is characterized as a return of capital and therefore excluded from investment income, whereas the NDI calculation includes the return of capital portion of such distributions.
- 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 Notes or MRP Shares. The termination payments on interest rate swap contracts are amortized over the term of the Notes or MRP Shares issued. For GAAP purposes, these amounts are included in the realized gains/losses section of the Statement of Operations.



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

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

**Liquidity and Capital Resources**

At November 30, 2016, we had total leverage outstanding of \$153 million, which represented 28% of total assets and was comprised of \$91 million of Notes, \$27 million of borrowings outstanding under our unsecured revolving term loan (the “Term Loan”) and \$35 million of MRP Shares. At November 30, 2016, we did not have any borrowings outstanding under our unsecured revolving credit facility (the “Credit Facility”), and we had \$1 million of cash and cash equivalents. As of January 20, 2017, we had \$35 million borrowed under our Term Loan, we had \$11 million borrowed under our Credit Facility and we had \$2 million of cash and cash equivalents.

On November 10, 2016, we entered into a new \$75 million Credit Facility with a syndicate of lenders. The Credit Facility replaces our previous \$105 million unsecured revolving credit facility that was scheduled to mature on November 21, 2016. The Credit Facility has a two-year term maturing on November 9, 2018. The interest rate on outstanding loan balances may vary between LIBOR plus 1.60% and LIBOR plus 2.25%, depending on our asset coverage ratios. We pay a fee of 0.30% per annum on any unused amounts of the Credit Facility.

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, 2016, we had \$91 million of Notes outstanding that mature between 2021 and 2023 and we had \$35 million of MRP Shares outstanding that are subject to mandatory redemption in 2021.

At November 30, 2016, our asset coverage ratios under the Investment Company Act of 1940, as amended (the “1940 Act”), were 455% for debt and 351% for total leverage (debt plus preferred stock). Our target asset coverage ratio with respect to our debt is 430%. At times we may be above or below our 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, 2016, our total leverage consisted of both fixed rate (82%) and floating rate (18%) obligations. At such date, the weighted average interest/dividend rate on our total leverage was 3.55%.

**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.**  
**SCHEDULE OF INVESTMENTS**  
**NOVEMBER 30, 2016**  
(amounts in 000's, except number of option contracts)

<u>Description</u>	<u>No. of Shares/Units</u>	<u>Value</u>
<b>Long-Term Investments — 139.1%</b>		
<b>Equity Investments<sup>(1)</sup> — 119.0%</b>		
<b>United States — 117.2%</b>		
<b>Midstream MLP<sup>(2)(3)</sup> — 57.9%</b>		
Arc Logistics Partners LP .....	412	\$ 6,072
Buckeye Partners, L.P. ....	107	6,862
Crestwood Equity Partners LP .....	147	3,291
DCP Midstream Partners, LP .....	314	10,882
Dominion Midstream Partners, LP .....	32	815
Enbridge Energy Management, L.L.C. <sup>(4)(5)</sup> .....	1,759	43,940
Energy Transfer Partners, L.P. <sup>(6)</sup> .....	423	14,840
EnLink Midstream Partners, LP .....	286	5,002
Enterprise Products Partners L.P. ....	309	8,001
EQT Midstream Partners, LP .....	34	2,490
Global Partners LP .....	240	3,793
Magellan Midstream Partners, L.P. ....	24	1,634
MPLX LP <sup>(7)</sup> .....	308	10,111
NGL Energy Partners LP .....	50	927
Noble Midstream Partners LP <sup>(8)</sup> .....	35	1,132
NuStar Energy L.P. ....	40	1,910
ONEOK Partners, L.P. <sup>(9)</sup> .....	277	11,595
PBF Logistics LP .....	131	2,438
Phillips 66 Partners LP .....	36	1,625
Plains GP Holdings, L.P. <sup>(5)(9)(10)</sup> .....	667	23,436
Plains GP Holdings, L.P. — Plains AAP, L.P. <sup>(5)(9)(10)(11)</sup> .....	690	24,245
Spectra Energy Partners, LP .....	50	2,125
Summit Midstream Partners, LP .....	62	1,399
Sunoco Logistics Partners L.P. <sup>(6)</sup> .....	363	8,595
TC PipeLines, LP .....	36	1,924
Tesoro Logistics LP .....	149	7,013
Western Gas Partners, LP .....	113	6,475
Williams Partners L.P. ....	260	9,490
		<u>222,062</u>
<b>Midstream Company<sup>(2)</sup> — 55.8%</b>		
Capital Product Partners L.P. — Class B Units <sup>(11)(12)(13)(14)</sup> .....	606	4,194
Dynagas LNG Partners LP <sup>(13)</sup> .....	1,296	20,108
EnLink Midstream, LLC <sup>(13)</sup> .....	98	1,793
GasLog Partners LP <sup>(13)</sup> .....	730	14,856
Golar LNG Partners LP <sup>(13)</sup> .....	752	16,743
Höegh LNG Partners LP <sup>(13)</sup> .....	316	5,972
Kinder Morgan, Inc. ....	221	4,902
KNOT Offshore Partners LP <sup>(13)</sup> .....	802	17,476
ONEOK, Inc. <sup>(7)(9)</sup> .....	706	38,754
SemGroup Corporation <sup>(7)</sup> .....	244	8,805
Spectra Energy Corp. <sup>(15)</sup> .....	406	16,630
Tallgrass Energy GP, LP <sup>(13)</sup> .....	494	11,964
Targa Resources Corp. ....	552	29,407
The Williams Companies, Inc. ....	460	14,122
VTTI Energy Partners LP <sup>(13)</sup> .....	471	8,413
		<u>214,139</u>

See accompanying notes to financial statements.

**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.**  
**SCHEDULE OF INVESTMENTS**  
**NOVEMBER 30, 2016**  
(amounts in 000's, except number of option contracts)

Description	No. of Shares/Units	Value		
<b>Other Energy Company — 3.5%</b>				
Anadarko Petroleum Corporation — 7.50% Tangible Equity Units <sup>(16)</sup> . . . .	145	\$ 5,980		
Macquarie Infrastructure Corporation . . . . .	88	7,235		
		13,215		
<b>Total United States (Cost — \$393,688)</b> . . . . .		449,416		
<b>Canada — 1.8%</b>				
<b>Midstream Company<sup>(2)</sup> — 1.8%</b>				
Enbridge Inc. <sup>(15)</sup> . . . . .	60	2,522		
TransCanada Corporation . . . . .	100	4,461		
		6,983		
<b>Total Canada (Cost — \$6,655)</b> . . . . .		456,399		
<b>Total Equity Investments (Cost — \$400,343)</b> . . . . .				
		456,399		
	<b>Interest Rate</b>	<b>Maturity Date</b>	<b>Principal Amount</b>	<b>Value</b>
<b>Debt Instruments — 20.1%</b>				
<b>United States — 16.4%</b>				
<b>Upstream — 14.9%</b>				
California Resources Corporation <sup>(9)(11)</sup> . . . . .	8.000%	12/15/22	\$12,925	10,405
Canbriam Energy Inc. <sup>(11)</sup> . . . . .	9.750	11/15/19	9,228	9,689
Chief Oil & Gas LLC <sup>(11)</sup> . . . . .	<sup>(17)</sup>	8/8/21	11,078	10,635
Eclipse Resources Corporation . . . . .	8.875	7/15/23	13,000	13,195
Great Western Petroleum, LLC <sup>(11)</sup> . . . . .	9.000	9/30/21	2,000	2,085
Jonah Energy LLC <sup>(11)</sup> . . . . .	<sup>(18)</sup>	5/12/21	6,413	6,076
Jones Energy Holdings, LLC . . . . .	9.250	3/15/23	5,000	4,956
Pardus Oil & Gas, LLC <sup>(11)(12)(19)</sup> . . . . .	<sup>(20)</sup>	5/31/22	52	34
				57,075
<b>Midstream Company<sup>(2)</sup> — 1.5%</b>				
Teekay Offshore Partners L.P. <sup>(13)</sup> . . . . .	6.000	7/30/19	6,712	5,688
				62,763
<b>Total United States (Cost — \$60,332)</b> . . . . .				
<b>Canada — 3.7%</b>				
<b>Upstream — 3.7%</b>				
Athabasca Oil Corporation <sup>(11)</sup> . . . . .	7.500	11/19/17	<sup>(21)</sup>	5,110
Jupiter Resources Inc. <sup>(11)</sup> . . . . .	8.500	10/1/22	11,250	9,338
				14,448
<b>Total Canada (Cost — \$14,381)</b> . . . . .				14,448
<b>Total Debt Investments (Cost — \$74,713)</b> . . . . .				77,211
<b>Total Long-Term Investments (Cost — \$475,056)</b> . . . . .				533,610
	<b>Strike Price</b>	<b>Expiration Date</b>	<b>No. of Contracts</b>	<b>Value</b>
<b>Liabilities</b>				
<b>Call Option Contracts Written<sup>(22)</sup></b>				
<b>Midstream MLP<sup>(2)</sup></b>				
MPLX LP . . . . .	\$35.00	12/16/16	150	(4)
MPLX LP . . . . .	36.00	12/16/16	150	(2)
				(6)

See accompanying notes to financial statements.

**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.**  
**SCHEDULE OF INVESTMENTS**  
**NOVEMBER 30, 2016**  
(amounts in 000's, except number of option contracts)

<u>Description</u>	<u>Strike Price</u>	<u>Expiration Date</u>	<u>No. of Contracts</u>	<u>Value</u>
<b>Midstream Company<sup>(2)</sup></b>				
ONEOK, Inc. ....	\$52.50	12/16/16	500	\$ (160)
SemGroup Corporation .....	35.00	12/16/16	200	(40)
				<u>(200)</u>
<b>Total Call Option Contracts Written (Premiums Received — \$93) .....</b>				<u>(206)</u>
<b>Debt .....</b>				(118,000)
<b>Mandatory Redeemable Preferred Stock at Liquidation Value .....</b>				(35,000)
<b>Other Assets in Excess of Other Liabilities .....</b>				<u>3,153</u>
<b>Net Assets Applicable to Common Stockholders .....</b>				<u>\$ 383,557</u>

- (1) Unless otherwise noted, equity investments are common units/common shares.
- (2) Refer to the “Glossary of Key Terms” for the definitions of Midstream MLPs and Midstream Companies.
- (3) Unless otherwise noted, securities are treated as a publicly-traded partnership for regulated investment company (“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 24.2% of its total assets invested in publicly-traded partnerships at November 30, 2016. It is the Fund’s intention to be treated as a RIC for tax purposes.
- (4) Dividends are paid-in-kind.
- (5) Security is not treated as a publicly-traded partnership for RIC qualification purposes.
- (6) On November 21, 2016, Energy Transfer Partners, L.P. and Sunoco Logistics Partners L.P. announced an agreement to combine in a unit-for-unit merger.
- (7) Security or a portion thereof is segregated as collateral on option contracts written.
- (8) Security is not currently paying cash distributions but is expected to pay cash distributions within the next 12 months.
- (9) The Fund believes that it is an affiliate of Plains AAP, L.P. (“PAGP-AAP”) and Plains GP Holdings, L.P. (“PAGP”). The Fund does not believe that it is an affiliate of ONEOK Partners, L.P., ONEOK, Inc. or California Resources Corporation. See Note 5 — Agreements and Affiliations.
- (10) 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, 2016, the Fund’s PAGP-AAP investment is valued at PAGP’s closing price.
- (11) The Fund’s ability to sell this security is subject to certain legal or contractual restrictions. As of November 30, 2016, the aggregate value of restricted securities held by the Fund was \$81,811 (15.2% of total assets). See Note 7 — Restricted Securities.
- (12) Fair valued security. See Notes 2 and 3 in Notes to Financial Statements.
- (13) This company is structured like an MLP, but is not treated as a publicly-traded partnership for RIC qualification purposes.
- (14) Class B Units are convertible on a one-for-one basis into common units of Capital Product Partners L.P. (“CPLP”) and are senior to the common units in terms of liquidation preference and priority of distributions. The Class B Units pay quarterly cash distributions and are convertible at any time at the option of the holder. The Class B Units paid a distribution of \$0.21375 per unit for the fourth quarter.

See accompanying notes to financial statements.

**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.**  
**SCHEDULE OF INVESTMENTS**  
**NOVEMBER 30, 2016**  
**(amounts in 000's, except number of option contracts)**

- (15) On September 6, 2016, Enbridge Inc. and Spectra Energy Corp. announced an agreement to combine in a stock-for-stock merger transaction.
- (16) Security is comprised of a prepaid equity purchase contract and a senior amortizing note. Unless settled earlier, each prepaid equity purchase contract will settle on June 7, 2018 for between 0.7159 and 0.8591 Western Gas Equity Partners, LP (“WGP”) common units (subject to Anadarko Petroleum Corporation’s (“APC”) right to deliver APC common stock in lieu of WGP common units). The Fund receives a quarterly payment of 7.50% per annum on the \$50 per unit stated amount of the security.
- (17) Floating rate second lien secured term loan. Security pays interest at a rate of LIBOR + 650 basis points with a 1.00% LIBOR floor (7.75% as of November 30, 2016).
- (18) Floating rate second lien secured term loan. Security pays interest at a rate of LIBOR + 650 basis points with a 1.00% LIBOR floor (7.50% as of November 30, 2016).
- (19) On May 13, 2016, Energy & Exploration Partners, Inc. emerged from a bankruptcy proceeding under Chapter 11 of the Bankruptcy Code. As a result of the reorganization, the Fund received a Senior Secured Second Lien Term Loan (principal amount of \$52). Effective September 1, 2016, Energy & Exploration Partners, Inc. changed its name to Pardus Oil & Gas, LLC.
- (20) Interest is paid in kind at a fixed rate per annum equal to 5.00%.
- (21) Principal amount is 6,850 Canadian dollars.
- (22) Security is non-income producing.

See accompanying notes to financial statements.

**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.**  
**STATEMENT OF ASSETS AND LIABILITIES**  
**NOVEMBER 30, 2016**  
(amounts in 000's, except share and per share amounts)

**ASSETS**

Investments, at fair value:	
Non-affiliated (Cost — \$441,769) .....	\$ 485,929
Affiliated (Cost — \$33,287) .....	<u>47,681</u>
Total investments (Cost — \$475,056) .....	533,610
Cash .....	1,017
Deposits with brokers .....	248
Receivable for securities sold .....	17
Interest, dividends and distributions receivable .....	1,871
Deferred debt and preferred stock offering costs and other assets .....	<u>2,191</u>
<b>Total Assets</b> .....	<u><u>538,954</u></u>

**LIABILITIES**

Investment management fee payable .....	539
Call option contracts written (Premiums received — \$93) .....	206
Accrued directors' fees and expenses .....	85
Accrued expenses and other liabilities .....	1,567
Term loan .....	27,000
Notes .....	91,000
Mandatory redeemable preferred stock, \$25.00 liquidation value per share (1,400,000 shares issued and outstanding) .....	<u>35,000</u>
<b>Total Liabilities</b> .....	<u>155,397</u>

**NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS** .....

\$ 383,557

**NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS CONSIST OF**

Common stock, \$0.001 par value (22,277,499 shares issued, 22,034,170 shares outstanding and 198,600,000 shares authorized) .....	\$ 22
Paid-in capital .....	478,279
Accumulated net investment income less distributions not treated as tax return of capital .....	(14,477)
Accumulated net realized losses less distributions not treated as tax return of capital .....	(138,694)
Net unrealized gains .....	<u>58,427</u>

**NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS** .....

\$ 383,557

**NET ASSET VALUE PER COMMON SHARE** .....

\$ 17.41

See accompanying notes to financial statements.



**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.**  
**STATEMENT OF OPERATIONS**  
**FOR THE FISCAL YEAR ENDED NOVEMBER 30, 2016**  
(amounts in 000's)

**INVESTMENT INCOME**

**Income**

Dividends and distributions:	
Non-affiliated investments .....	\$ 26,524
Affiliated investments .....	3,099
Total dividends and distributions (after foreign taxes withheld of \$39) .....	29,623
Return of capital .....	(19,388)
Net dividends and distributions .....	10,235
Interest income .....	7,555
Total Investment Income .....	<u>17,790</u>

**Expenses**

Investment management fees .....	5,707
Professional fees .....	376
Directors' fees and expenses .....	348
Administration fees .....	199
Reports to stockholders .....	157
Insurance .....	135
Custodian fees .....	36
Other expenses .....	146
Total Expenses — before interest expense and preferred distributions .....	7,104
Interest expense and amortization of offering costs .....	9,341
Distributions on mandatory redeemable preferred stock and amortization of offering costs .....	2,800
Total Expenses .....	<u>19,245</u>
<b>Net Investment Loss</b> .....	<u>(1,455)</u>

**REALIZED AND UNREALIZED GAINS (LOSSES)**

**Net Realized Gains (Losses)**

Investments — non-affiliated .....	(105,087)
Investments — affiliated .....	2,272
Foreign currency transactions .....	(6)
Options .....	1,128
Net Realized Losses .....	<u>(101,693)</u>

**Net Change in Unrealized Gains (Losses)**

Investments — non-affiliated .....	130,281
Investments — affiliated .....	5,253
Foreign currency translations .....	3
Options .....	(111)
Net Change in Unrealized Gains .....	<u>135,426</u>

<b>Net Realized and Unrealized Gains</b> .....	<u>33,733</u>
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<b>NET INCREASE IN NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS RESULTING FROM OPERATIONS</b> .....	<u>\$ 32,278</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,	
	2016	2015
<b>OPERATIONS</b>		
Net investment income (loss) <sup>(1)</sup> .....	\$ (1,455)	\$ 6,534
Net realized losses .....	(101,693)	(26,681)
Net change in unrealized gains (losses) .....	<u>135,426</u>	<u>(372,157)</u>
<b>Net Increase (Decrease) in Net Assets Resulting from Operations</b> .....	<u>32,278</u>	<u>(392,304)</u>
<b>DIVIDENDS AND DISTRIBUTIONS TO COMMON STOCKHOLDERS</b> <sup>(2)</sup>		
Dividends .....	(32,915)	(36,440)
Distributions — net long-term capital gains .....	<u>—</u>	<u>(46,239)</u>
<b>Dividends and Distributions to Common Stockholders</b> .....	<u>(32,915)</u>	<u>(82,679)</u>
<b>CAPITAL STOCK TRANSACTIONS</b>		
Issuance of 136,202 shares of common stock .....	1,438 <sup>(3)</sup>	—
Issuance of 234,832 and 41,203 shares of common stock from reinvestment of dividends and distributions, respectively .....	<u>2,278</u>	<u>1,204</u>
<b>Net Increase in Net Assets Applicable to Common Stockholders from Capital Stock Transactions</b> .....	<u>3,716</u>	<u>1,204</u>
<b>Total Increases in Net Assets Applicable to Common Stockholders</b> .....	<u>3,079</u>	<u>(473,779)</u>
<b>NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS</b>		
Beginning of year .....	<u>380,478</u>	<u>854,257</u>
End of year .....	<u>\$ 383,557</u>	<u>\$ 380,478</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 \$2,441 paid to holders of MRP Shares for the fiscal year ended November 30, 2016 were characterized as dividends (\$2,141) and return of capital (\$300). Distributions in the amount of \$5,567 paid to holders of MRP Shares for the fiscal year ended November 30, 2015 were characterized as dividends (\$1,982) and as long-term capital gains (\$3,585). A portion of the distributions characterized as dividends for the fiscal years ended November 30, 2016 and 2015, 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, 2016 and 2015 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) On December 17, 2015, the Fund's investment advisor, KA Fund Advisors, LLC, purchased \$1,438 of newly issued shares funded in part with the after-tax management fees received during the fourth quarter of fiscal 2015. See Note 13 — Common Stock.

See accompanying notes to financial statements.

**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.**  
**STATEMENT OF CASH FLOWS**  
**FOR THE FISCAL YEAR ENDED NOVEMBER 30, 2016**  
(amounts in 000's)

**CASH FLOWS FROM OPERATING ACTIVITIES**

Net increase in net assets resulting from operations . . . . .	\$ 32,278
Adjustments to reconcile net increase in net assets resulting from operations to net cash provided by operating activities:	
Return of capital distributions . . . . .	19,388
Net realized losses (excluding foreign currency transactions) . . . . .	101,687
Net change in unrealized losses (excluding foreign currency translations) . . . . .	(135,423)
Accretion of bond discounts, net . . . . .	(894)
Purchase of long-term investments . . . . .	(216,031)
Proceeds from sale of long-term investments . . . . .	301,294
Decrease in deposits with brokers . . . . .	13
Decrease in receivable for securities sold . . . . .	1,410
Decrease in interest, dividends and distributions receivable . . . . .	737
Amortization and write-off of deferred debt offering costs . . . . .	839
Amortization and write-off of mandatory redeemable preferred stock offering costs . . . . .	359
Decrease in other assets . . . . .	111
Decrease in investment management fee payable . . . . .	(170)
Decrease in premiums received on call option contracts written . . . . .	(509)
Decrease in accrued directors' fees and expenses . . . . .	(6)
Decrease in accrued expenses and other liabilities . . . . .	<u>(1,360)</u>
<b>Net Cash Provided by Operating Activities . . . . .</b>	<b><u>103,723</u></b>

**CASH FLOWS FROM FINANCING ACTIVITIES**

Increase in borrowings under term loan . . . . .	27,000
Redemption of notes . . . . .	(94,000)
Redemption of mandatory redeemable preferred stock . . . . .	(35,000)
Proceeds from issuance of common stock . . . . .	1,438
Costs associated with renewal of credit facility . . . . .	(874)
Cash distributions paid to common stockholders . . . . .	<u>(30,637)</u>
<b>Net Cash Used in Financing Activities . . . . .</b>	<b><u>(132,073)</u></b>

**NET DECREASE IN CASH . . . . .** (28,350)

**CASH — BEGINNING OF YEAR . . . . .** 29,367

**CASH — END OF YEAR . . . . .** \$ 1,017

Supplemental disclosure of cash flow information:

Non-cash financing activities not included herein consisted of reinvestment of distributions of \$2,278 pursuant to the Fund's dividend reinvestment plan.

During the fiscal year ended November 30, 2016, interest paid related to debt obligations was \$9,520.

During the fiscal year ended November 30, 2016, the Fund received \$3,956 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,		
	2016	2015	2014
<b>Per Share of Common Stock<sup>(1)</sup></b>			
Net asset value, beginning of period	\$ 17.56	\$ 39.51	\$ 35.75
Net investment income (loss) <sup>(2)</sup>	(0.07)	0.30	(0.01)
Net realized and unrealized gains (losses)	1.43	(18.42)	5.61
Total income (loss) from operations	1.36	(18.12)	5.60
Common dividends — dividend income <sup>(3)</sup>	(1.50)	(1.68)	(1.57)
Common distributions — long-term capital gains <sup>(3)</sup>	—	(2.14)	(0.34)
Common distributions — return of capital <sup>(3)</sup>	—	—	—
Total dividends and distributions — common	(1.50)	(3.82) <sup>(4)</sup>	(1.91)
Effect of shares issued in reinvestment of distributions	(0.01)	(0.01)	(0.02)
Effect of issuance of common stock	—	—	—
Effect of common stock repurchased	—	—	0.09
Net asset value, end of period	\$ 17.41	\$ 17.56	\$ 39.51
Market value per share of common stock, end of period	\$ 15.33	\$ 15.46	\$ 35.82
Total investment return based on common stock market value <sup>(5)</sup>	12.7%	(50.2)%	15.3%
Total investment return based on net asset value <sup>(6)</sup>	12.7%	(48.7)%	16.4%
<b>Supplemental Data and Ratios<sup>(7)</sup></b>			
Net assets applicable to common stockholders, end of period	\$ 383,557	\$ 380,478	\$ 854,257
Ratio of expenses to average net assets			
Management fees <sup>(8)</sup>	1.8%	1.9%	1.7%
Other expenses	0.5	0.2	0.2
Subtotal	2.3	2.1	1.9
Interest expense and distributions on mandatory redeemable preferred stock <sup>(2)</sup>	3.8	2.5	1.7
Management fee waiver	—	—	—
Excise taxes	—	0.4	—
Total expenses	6.1%	5.0%	3.6%
Ratio of net investment income (loss) to average net assets <sup>(2)</sup>	(0.5)%	1.0%	(0.0)%
Net increase (decrease) in net assets applicable to common stockholders resulting from operations to average net assets	10.3%	(58.3)%	14.0%
Portfolio turnover rate	48.2%	45.3%	45.3%
Average net assets	\$ 314,015	\$ 672,534	\$ 887,585
Notes outstanding, end of period	\$ 91,000	\$ 185,000	\$ 235,000
Credit facility outstanding, end of period	\$ —	\$ —	\$ —
Term loan outstanding, end of period	\$ 27,000	\$ —	\$ 46,000
Mandatory redeemable preferred stock, end of period	\$ 35,000	\$ 70,000	\$ 105,000
Average shares of common stock outstanding	21,975,582	21,657,943	21,897,671
Asset coverage of total debt <sup>(9)</sup>	454.7%	343.5%	441.4%
Asset coverage of total leverage (debt and preferred stock) <sup>(10)</sup>	350.7%	249.2%	321.3%
Average amount of borrowings per share of common stock during the period <sup>(1)</sup>	\$ 4.86	\$ 11.16	\$ 12.84

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,	
	2013	2012
<b>Per Share of Common Stock<sup>(1)</sup></b>		
Net asset value, beginning of period	\$ 29.01	\$ 25.94
Net investment income (loss) <sup>(2)</sup>	(0.06)	0.17
Net realized and unrealized gains (losses)	8.61	4.64
Total income (loss) from operations	8.55	4.81
Common dividends — dividend income <sup>(3)</sup>	(1.15)	(1.30)
Common distributions — long-term capital gains <sup>(3)</sup>	(0.66)	(0.41)
Common distributions — return of capital <sup>(3)</sup>	—	—
Total dividends and distributions — common	(1.81)	(1.71)
Effect of shares issued in reinvestment of distributions	—	(0.03)
Effect of issuance of common stock	—	—
Effect of common stock repurchased	—	—
Net asset value, end of period	\$ 35.75	\$ 29.01
Market value per share of common stock, end of period	\$ 32.71	\$ 28.04
Total investment return based on common stock market value <sup>(5)</sup>	23.5%	33.3%
Total investment return based on net asset value <sup>(6)</sup>	30.5%	19.4%
<b>Supplemental Data and Ratios<sup>(7)</sup></b>		
Net assets applicable to common stockholders, end of period	\$ 788,057	\$ 635,226
Ratio of expenses to average net assets		
Management fees <sup>(8)</sup>	1.8%	1.7%
Other expenses	0.2	0.3
Subtotal	2.0	2.0
Interest expense and distributions on mandatory redeemable preferred stock <sup>(2)</sup>	1.8	1.8
Management fee waiver	—	—
Excise taxes	0.1	—
Total expenses	3.9%	3.8%
Ratio of net investment income (loss) to average net assets <sup>(2)</sup>	(0.2)%	0.6%
Net increase (decrease) in net assets applicable to common stockholders		
resulting from operations to average net assets	25.9%	16.8%
Portfolio turnover rate	49.1%	67.6%
Average net assets	\$ 726,248	\$ 620,902
Notes outstanding, end of period	\$ 205,000	\$ 165,000
Credit facility outstanding, end of period	\$ 50,000	\$ 48,000
Term loan outstanding, end of period	\$ —	\$ —
Mandatory redeemable preferred stock, end of period	\$ 65,000	\$ 65,000
Average shares of common stock outstanding	21,969,288	21,794,596
Asset coverage of total debt <sup>(9)</sup>	434.5%	428.7%
Asset coverage of total leverage (debt and preferred stock) <sup>(10)</sup>	346.3%	328.5%
Average amount of borrowings per share of common stock during the period <sup>(1)</sup>	\$ 10.51	\$ 8.85

See accompanying notes to financial statements.

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

	<b>For the Fiscal Year Ended November 30, 2011</b>	<b>For the Period November 24, 2010<sup>(11)</sup> through November 30, 2010</b>
<b>Per Share of Common Stock<sup>(1)</sup></b>		
Net asset value, beginning of period . . . . .	\$ 23.80	\$ 23.83 <sup>(12)</sup>
Net investment income (loss) <sup>(2)</sup> . . . . .	0.29	(0.02)
Net realized and unrealized gains (losses) . . . . .	3.12	(0.01)
Total income (loss) from operations . . . . .	<u>3.41</u>	<u>(0.03)</u>
Common dividends — dividend income <sup>(3)</sup> . . . . .	(1.20)	—
Common distributions — long-term capital gains <sup>(3)</sup> . . . . .	—	—
Common distributions — return of capital <sup>(3)</sup> . . . . .	—	—
Total dividends and distributions — common . . . . .	<u>(1.20)</u>	<u>—</u>
Effect of shares issued in reinvestment of distributions . . . . .	(0.04)	—
Effect of issuance of common stock . . . . .	(0.03)	—
Effect of common stock repurchased . . . . .	—	—
Net asset value, end of period . . . . .	<u>\$ 25.94</u>	<u>\$ 23.80</u>
Market value per share of common stock, end of period . . . . .	<u>\$ 22.46</u>	<u>\$ 25.00</u>
Total investment return based on common stock market value <sup>(5)</sup> . . . . .	(5.5)%	0.0% <sup>(13)</sup>
Total investment return based on net asset value <sup>(6)</sup> . . . . .	14.7%	(0.1)% <sup>(13)</sup>
<b>Supplemental Data and Ratios<sup>(7)</sup></b>		
Net assets applicable to common stockholders, end of period . . . . .	\$ 562,044	\$ 452,283
Ratio of expenses to average net assets		
Management fees <sup>(8)</sup> . . . . .	1.6%	1.3%
Other expenses . . . . .	0.3	0.3 <sup>(14)</sup>
Subtotal . . . . .	<u>1.9</u>	<u>1.6</u>
Interest expense and distributions on mandatory redeemable preferred stock <sup>(2)</sup> . . . . .	1.3	—
Management fee waiver . . . . .	(0.3)	(0.3)
Excise taxes . . . . .	—	—
Total expenses . . . . .	<u>2.9%</u>	<u>1.3%</u>
Ratio of net investment income (loss) to average net assets <sup>(2)</sup> . . . . .	1.1%	(1.3)% <sup>(14)</sup>
Net increase (decrease) in net assets applicable to common stockholders		
resulting from operations to average net assets . . . . .	13.4%	(0.1)% <sup>(13)</sup>
Portfolio turnover rate . . . . .	74.1%	0.0% <sup>(13)</sup>
Average net assets . . . . .	\$ 537,044	\$ 452,775
Notes outstanding, end of period . . . . .	\$ 115,000	\$ —
Credit facility outstanding, end of period . . . . .	\$ 45,000	\$ —
Term loan outstanding, end of period . . . . .	\$ —	\$ —
Mandatory redeemable preferred stock, end of period . . . . .	\$ 35,000	\$ —
Average shares of common stock outstanding . . . . .	21,273,512	19,004,000
Asset coverage of total debt <sup>(9)</sup> . . . . .	473.2%	—
Asset coverage of total leverage (debt and preferred stock) <sup>(10)</sup> . . . . .	388.2%	—
Average amount of borrowings per share of common stock during the period <sup>(1)</sup> . . . . .	\$ 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) 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.
  - (6) Total investment return based on net asset value is calculated assuming a purchase of common stock at the net asset value on the first day and a sale at the net asset value on the last day of the period reported. The calculation also assumes reinvestment of distributions at actual prices pursuant to the Fund's dividend reinvestment plan.
  - (7) Unless otherwise noted, ratios are annualized.
  - (8) Ratio reflects total management fee before waiver, if any.
  - (9) 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 or any other senior securities representing indebtedness and MRP Shares 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.
  - (10) 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, 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. 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.
  - (11) Commencement of operations.
  - (12) 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.
  - (13) Not annualized.
  - (14) 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") 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."

**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."

*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 KA Fund Advisors, LLC ("KAFA") such prices are stale or do not represent fair value, by an independent broker. For debt securities that are considered bank loans, the fair market value is determined by using the mean of the bid and ask prices provided by the agent or syndicate bank or principal market maker. When price quotes for securities are not available, or such prices are stale or do not represent fair value in the judgment of KAFA, fair market value will be determined using the Fund's valuation process for securities that are privately issued or otherwise restricted as to resale.

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

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, shall each be valued in a manner that most fairly reflects fair value of the security on the valuation date. Unless otherwise determined by the Board of Directors, the following valuation process is used for such securities:

- **Investment Team Valuation.** The applicable investments are valued by senior professionals of Kafa who are responsible for the portfolio investments. The investments will be valued monthly, with new investments valued at the time such investment was made.
- **Investment Team Valuation Documentation.** Preliminary valuation conclusions will be determined by senior management of Kafa. Such valuations and supporting documentation are submitted to the Valuation Committee (a committee of the Fund's Board of Directors) and the Board of Directors on a quarterly basis.
- **Valuation Committee.** The Valuation Committee meets to consider the valuations submitted by Kafa at the end of each quarter. Between meetings of the Valuation Committee, a senior officer of Kafa is authorized to make valuation determinations. All valuation determinations of the Valuation Committee are subject to ratification by the Board of Directors at its next regular meeting.
- **Valuation Firm.** Quarterly, a third-party valuation firm engaged by the Board of Directors reviews the valuation methodologies and calculations employed for these securities, unless the aggregate fair value of such security is less than 0.1% of total assets.
- **Board of Directors Determination.** The Board of Directors meets quarterly to consider the valuations provided by Kafa and the Valuation Committee and ratify valuations for the applicable securities. The Board of Directors considers the report provided by the third-party valuation firm in reviewing and determining in good faith the fair value of the applicable portfolio securities.

As of November 30, 2016, the Fund held 1.1% of its net assets applicable to common stockholders (0.8% of total assets) in securities that were fair valued pursuant to the procedures adopted by the Board of Directors. The aggregate fair value of these securities at November 30, 2016 was \$4,228. See Note 3 — Fair Value and Note 7 — Restricted Securities.

E. *Repurchase Agreements* — From time to time, the Fund has agreed to purchase securities from financial institutions subject to the seller's agreement to repurchase them at an agreed-upon time and price ("repurchase agreements"). The financial institutions with whom the Fund enters into repurchase agreements are banks and broker/dealers which Kafa considers creditworthy. The seller under a repurchase agreement is required to maintain the value of the securities as collateral, subject to the agreement, at not less than the repurchase price plus accrued interest. Kafa monitors daily the mark-to-market of the value of the collateral, and, if necessary, requires the seller to maintain additional securities, so that the value of the collateral is not less than the repurchase price. Default by or bankruptcy of the seller would, however, expose the Fund to possible loss because of adverse market action or delays in connection with the disposition of the underlying securities. During the fiscal year ended November 30, 2016, the Fund did not enter into any repurchase agreements.

F. *Short Sales* — A short sale is a transaction in which the Fund sells securities it does not own (but has borrowed) in anticipation of or to hedge against a decline in the market price of the securities. To complete a short sale, the Fund may arrange through a broker to borrow the securities to be delivered to the buyer. The

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

proceeds received by the Fund for the short sale are retained by the broker until the Fund replaces the borrowed securities. In borrowing the securities to be delivered to the buyer, the Fund becomes obligated to replace the securities borrowed at their market price at the time of replacement, whatever the price may be.

The Fund's short sales, if any, are fully collateralized. The Fund is required to maintain assets consisting of cash or liquid securities equal in amount to the liability created by the short sale. These assets are adjusted daily to reflect changes in the value of the securities sold short. The Fund is liable for any dividends or distributions paid on securities sold short.

The Fund may also sell short "against the box" (*i.e.*, the Fund enters into a short sale as described above while holding an offsetting long position in the security which it sold short). If the Fund enters into a short sale "against the box," the Fund would segregate an equivalent amount of securities owned as collateral while the short sale is outstanding. During the fiscal year ended November 30, 2016, the Fund did not engage in any short sales.

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

In October 2016, the Securities and Exchange Commission ("SEC") adopted new rules and forms, and amendments to certain current rules and forms, to modernize reporting and disclosure of information by registered investment companies. The amendments to Regulation S-X will require standardized, enhanced disclosure about derivatives in investment company financial statements, and will also change the rules governing the form and content of such financial statements. The amendments to Regulation S-X take effect on August 1, 2017. At this time, the Fund is assessing the anticipated impact of these regulatory developments and will adopt these when they become effective.

*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 uses for hedging purposes expose it to certain risks that differ from the risks associated with its portfolio holdings. A decline in interest rates may result in a decline in the value of the swap contracts, which, everything else being held constant, would result in a decline in the net assets of the 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.

**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 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).

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.

*H. 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. Since the Fund's inception, it had also utilized the specific identification cost basis method for tax purposes. On July 13, 2015, the Fund filed a request with the Internal Revenue Service to change the tax accounting method used to compute the adjusted tax cost basis of its MLP securities to the average cost method. On February 5, 2016, the Fund received notification that the IRS approved the tax accounting method change effective December 1, 2014. The tax accounting method change did not change the accounting method utilized for GAAP purposes. See Note 6 — Taxes.

*I. Return of Capital Estimates* — Dividends and distributions received from the Fund's investments 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. Since its inception, the Fund has estimated that 90% of distributions received from its MLP investments were return of capital distributions. This estimate is adjusted to actual in the subsequent fiscal year when tax reporting information related to the Fund's MLP investments is received. Based on the actual return of capital during the previous two years, the Fund revised its estimate of return of capital related to MLP investments to 95%. Such estimates for MLPs and other investments are based on historical information available from each investment and other industry sources.

The return of capital portion of the distributions is a reduction to investment income, an equivalent reduction in the cost basis of the associated investments and an increase to net realized gains (losses) and net change in unrealized gains (losses). If the cash 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 cash 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, 2016, the Fund estimated \$19,388 of return of capital and there were no cash 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.



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

	<u>For the Fiscal Year Ended November 30, 2016</u>
Dividends from investments .....	\$17,259
Distributions from investments .....	<u>12,403</u>
Total dividends and distributions from investments (before foreign taxes withheld of \$39) .....	<u><u>\$29,662</u></u>
Dividends — % return of capital .....	41%
Distributions — % return of capital .....	100%
Total dividends and distributions — % return of capital .....	65%
Return of capital — attributable to net realized gains (losses) .....	\$ 3,171
Return of capital — attributable to net change in unrealized gains (losses) .....	<u>16,217</u>
Total return of capital .....	<u><u>\$19,388</u></u>

For the fiscal year ended November 30, 2016, the Fund estimated the return of capital portion of distributions received to be \$16,447 (56%). This amount was increased by \$2,941 due to 2015 tax reporting information received by the Fund in fiscal 2016. As a result, the return of capital percentage for the fiscal year ended November 30, 2016 was 65%.

*J. 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.

During the first quarter, the Fund established \$394 of reserves against interest income related to its investments in Energy & Exploration Partners, Inc. (\$24), Goodrich Petroleum Corporation (\$127) and Midstates Petroleum Company, Inc. (\$243). Once these reserves were established, the Fund stopped accruing interest income related to these investments. As of November 30, 2016, the Fund no longer holds these investments and has written off all related reserves.

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



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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. During the fiscal year ended November 30, 2016, the Fund received \$3,956 of paid-in-kind dividends from its investment in Enbridge Energy Management, L.L.C.

*K. 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.

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

*M. 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.

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).

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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.

Since the Fund’s inception, it had utilized the specific identification tax accounting method to compute the adjusted tax cost basis of its MLP securities and for selection of lots to be sold. On July 13, 2015, the Fund filed a request with the Internal Revenue Service to change the tax accounting method used to compute the adjusted tax cost basis of its MLP securities to the average cost method. On February 5, 2016, the Fund received notification that the IRS approved the tax accounting method change effective December 1, 2014. See Note 6 — Taxes.

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 2012 remain open and subject to examination by federal and state tax authorities.

*N. 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.

*O. 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.

*P. 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 senior notes) or its preferred stock are capitalized and amortized over the period the debt or preferred stock is outstanding.

In April 2015, the FASB issued Accounting Standards Update (“ASU”) No. 2015-03 “Interest — Imputation of Interest (Subtopic 835-30), Simplifying the Presentation of Debt Issuance Costs”. ASU No. 2015-03 requires that all costs incurred to issue debt be presented in the balance sheet as a direct deduction from the carrying value of the debt. In August 2015, the FASB issued ASU No. 2015-15 “Interest — Imputation of Interest (Subtopic 835-30), Presentation and Subsequent Measurement of Debt Issuance Costs Associated with

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Line-of-Credit Arrangements". ASU No. 2015-15 states that the SEC staff will not object to an entity presenting the cost of securing a revolving line of credit as an asset, regardless of whether a balance is outstanding. ASU No. 2015-03 and ASU No. 2015-15 are effective for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years, and should be applied retrospectively. The Fund will adopt these changes related to balance sheet presentation in fiscal 2017 when they become effective.

### **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.

Accounting Standards Update ("ASU") No. 2011-04 "Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs" amends ASC 820. The amended guidance clarifies the wording used to describe many requirements in accounting literature for fair value measurement and disclosure to establish consistency between U.S. GAAP and International Financial Reporting Standards ("IFRSs").

ASU No. 2011-04 requires the inclusion of additional disclosures on assumptions used by the Fund to determine fair value. Specifically, for assets measured at fair value using significant unobservable inputs (Level 3), ASU No. 2011-04 requires that the Fund (i) describe the valuation process, (ii) disclose quantitative information about unobservable inputs and (iii) provide a qualitative discussion about the sensitivity of the fair value measurement to changes in the unobservable inputs and inter-relationships between the inputs.

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.

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The following table presents the Fund's assets and liabilities measured at fair value on a recurring basis at November 30, 2016, and the Fund presents these assets and liabilities by security type and description on its Schedule of Investments or on its Statement of Assets and Liabilities. 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>
<b>Assets at Fair Value</b>				
Equity investments	\$456,399	\$427,960	\$ 24,245 <sup>(1)</sup>	\$4,194
Debt investments	<u>77,211</u>	<u>—</u>	<u>77,177</u>	<u>34</u>
Total assets at fair value	<u>\$533,610</u>	<u>\$427,960</u>	<u>\$101,422</u>	<u>\$4,228</u>
<b>Liabilities at Fair Value</b>				
Call option contracts written	\$ 206	\$ —	\$ 206	\$ —

(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, 2016, the Fund's PAGP-AAP investment is valued at PAGP's closing price. The Fund categorizes its investment as a Level 2 security for fair value reporting purposes.

For the fiscal year ended November 30, 2016, there were no transfers between Level 1 and Level 2.

As of November 30, 2016, the Fund had Notes outstanding with aggregate principal amount of \$91,000 and 1,400,000 shares of MRP Shares outstanding with a total liquidation value of \$35,000. 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, 2016, 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	\$91,000	\$92,300
MRP Shares	\$35,000	\$35,200

The following tables present 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, 2016.

	<u>Equity</u>	<u>Debt</u>	<u>Total</u>
Balance — November 30, 2015	\$ 4,327	\$ —	\$ 4,327
Purchases	2,500	—	2,500
Transfers in from Level 2	—	1,570	1,570
Transfers out to Level 1 and 2	(2,500)	(857)	(3,357)
Realized gains (losses)	—	(687)	(687)
Unrealized gains (losses), net	(133)	8	(125)
Balance — November 30, 2016	<u>\$ 4,194</u>	<u>\$ 34</u>	<u>\$ 4,228</u>

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The purchase of \$2,500 relates to the Fund's investment in Sunoco LP that was made in December 2015.

The \$1,570 of transfers in from Level 2 relate to the Fund's investments in the Goodrich Petroleum Corporation ("Goodrich") 8.875% second lien senior secured notes due 2018 (the "Goodrich Second Lien Notes") and Energy & Exploration Partners, Inc. ("ENXP") senior secured second lien term loan ("ENXP Second Lien Term Loan"). The \$857 transfer out to Level 2 relates to the Goodrich Second Lien Notes, as trading activity during the third quarter supported a Level 2 valuation for this security. The \$2,500 transfer out to Level 1 relates to the Fund's investment in Sunoco LP that became marketable during the second quarter of 2016. The Fund utilizes the beginning of reporting period method for determining transfers between levels.

The \$687 of realized losses relate to the Fund's investment in ENXP and were a result of ENXP completing its Chapter 11 restructuring.

The \$125 of unrealized losses relate to investments that were still held at November 30, 2016, 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 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") that were issued in a private placement. The Class B Units are convertible on a one-for-one basis into common units and are senior to CPLP's common units in terms of liquidation preference and priority of distributions. The Fund's Board of Directors has determined that it is appropriate to value the Class B Units using a convertible pricing model. This model takes into account the attributes of the Class B Units, including the preferred dividend, conversion ratio and call features, to determine the estimated value of such units. In using this model, the Fund estimates (i) the credit spread for CPLP's Class B Units, which is based on credit spreads for companies in a similar line of business as CPLP and (ii) the expected volatility for CPLP's common units, which is based on CPLP's historical volatility. The Fund applies a discount to the value derived from the convertible pricing model to account for an expected discount in market prices for convertible securities relative to the values calculated using pricing models. If this resulting price per Class B Unit is less than the public market price for CPLP's common units at such time, the public market price for CPLP's common unit will be used for the Class B Units.

During the second quarter, the Fund determined that the price provided by an agent bank for its investment in the ENXP Second Lien Term Loan was not representative of fair value and accordingly began categorizing the investment as a Level 3 investment (previously a Level 2 investment). On May 13, 2016, ENXP emerged from a bankruptcy proceeding under Chapter 11 of the Bankruptcy Code. As a result of the reorganization, the Fund received a Second Lien Term Loan. Effective September 1, 2016, ENXP changed its name to Pardus Oil & Gas, LLC ("Pardus"). To estimate the value of its investment in the Pardus Second Lien Term Loan (security received as part of the reorganization), the Fund calculates an average yield to worst for comparable companies with second lien debt. Using the average yield, the Fund calculates an approximate value for the Pardus Second Lien Term Loan. Given the small size and limited liquidity of the issuance, the Fund selected a further discount to apply to the calculated value in determining the fair value of the Pardus Second Lien Term Loan. The Fund

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believes this valuation methodology is the most appropriate given Pardus' reorganized capital structure which is expected to result in a full recovery for the holders of the Second Lien Term Loan.

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, 2016:

**Quantitative Table for Valuation Techniques**

Assets at Fair Value	Fair Value	Valuation Technique	Unobservable Inputs	Range		Average
				Low	High	
CPLP – valued based on pricing model	\$ 4,194	- Convertible pricing model	- Credit spread	7.8%	8.5%	8.1%
			- Volatility	40.0%	45.0%	42.5%
			- Discount for marketability	10.0%	10.0%	10.0%
Pardus – valued based on yield to worst	34	- Yield to worst of comparable securities	- Yield to worst	8.6%	12.7%	10.6%
			- Liquidity discount	15.0%	15.0%	15.0%
Total	<u>\$ 4,228</u>					

**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, 2016, the Fund had the following investment concentrations:

<u>Category</u>	<u>Percent of Long-Term Investments</u>
Securities of Energy Companies <sup>(1)</sup>	100.0%
Equity securities	85.5%
Debt securities	14.5%
Securities of MLPs <sup>(1)</sup>	41.6%
Largest single issuer <sup>(2)</sup>	8.9%
Restricted securities	15.3%

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

(2) The percentage shown includes our holdings of Plains AAP, L.P. and Plains GP Holdings, L.P.



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**5. Agreements and Affiliations**

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

B. *Investment Management Agreement* — The 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 30, 2016, the Fund renewed its investment management agreement with KAFA for a period of one year. The investment management agreement will expire on March 31, 2017 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, 2016, 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. *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. 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.



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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.

*Plains AAP, L.P., Plains All American Pipeline, 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 PAA, PAGP and PAGP-AAP under the 1940 Act by virtue of (i) the Fund’s and other affiliated Kayne Anderson funds’ ownership interest in PAA, PAGP and PAGP-AAP and (ii) Mr. Sinnott’s participation on the board of PAA GP Holdings LLC.

*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.

*ONEOK, Inc. and ONEOK Partners, L.P.* — Kevin S. McCarthy, the Chief Executive Officer of the Fund, began serving as a director of ONEOK, Inc. (“OKE”) during December 2015. OKE is the general partner of ONEOK Partners, L.P. (“OKS”). Despite Mr. McCarthy’s participation on the board of OKE, the Fund does not believe it is an affiliate of OKE or OKS because the Fund’s and other Kayne Anderson funds’ aggregate ownership of each entity does not meet the criteria described above.

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The following table summarizes the Fund's investments in affiliates as of November 30, 2016:

<u>Investment</u>	<u>No. of Shares/Units in 000's</u>	<u>Dividends and Distributions Received During the Fiscal Year Ended November 30, 2016</u>	<u>Value</u>
Plains All American Pipeline, L.P. ....	—	\$ 334	\$ —
Plains GP Holdings, L.P. ....	667	1,112	23,436
Plains GP Holdings, L.P. — Plains AAP, L.P. ....	690	1,653	24,245
Total .....		<u>\$3,099</u>	<u>\$47,681</u>

**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, 2016, 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, 2016, the Fund reclassified \$2,655 from accumulated net investment income to paid in capital primarily due to a reduction to net operating loss, partially offset by distributions in excess of taxable income and the permanent differences between GAAP and tax treatment of the amortization of MRP Shares offering costs. The Fund also reclassified \$32,115 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, 2016, the Fund did not have any undistributed ordinary income and long-term capital gains. The following table sets forth the components of accumulated income or deficit for the Fund.

	<u>As of November 30, 2016</u>
Capital loss carryforward .....	\$(138,137)
Unrealized appreciation of investments .....	43,383
Total accumulated income (deficit) .....	<u>\$ (94,754)</u>

For the fiscal year ended November 30, 2016, the tax character of the total \$32,915 distributions paid to common stockholders was dividend income. The tax character of the total \$2,441 distributions paid to holders of MRP Shares was \$2,141 of dividend income and \$300 of return of capital.

**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.**  
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For the fiscal year ended November 30, 2015, the tax character of the total \$82,679 distributions paid to common stock holders was \$36,440 of dividend income and \$46,239 of long-term capital gains, and the tax character of the total \$5,567 distributions paid to holders of MRP Shares was \$1,982 of dividend income and \$3,585 of long-term capital gains.

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.

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.

On July 13, 2015, the Fund filed a request with the Internal Revenue Service (the "IRS") to change the tax accounting method used to compute the adjusted tax cost basis of its MLP securities to the average cost method. The two tax accounting methods that are generally used by owners of MLP securities are the average cost method and specific identification method. Since the Fund's inception, based on the advice of its tax adviser, it had utilized the specific identification tax accounting method to compute the adjusted tax cost basis of its MLP securities and for selection of lots to be sold. Although there is varied industry practice and no direct, clear guidance regarding the correct tax accounting method, the Fund has come to the conclusion that the average cost method is a more certain tax position.

On February 5, 2016, the Fund received notification that the IRS approved the tax accounting method change effective December 1, 2014. The tax accounting method change did not change the Fund's net asset value and the difference between the two methods (\$20,943) reduced fiscal 2015 taxable income. See Note 2 — Significant Accounting Policies.

At November 30, 2016, the cost basis of investments for federal income tax purposes was \$490,091, and the premiums received on outstanding option contracts written were \$93. At November 30, 2016, gross unrealized appreciation and depreciation of investments and options for federal income tax purposes were as follows:

Gross unrealized appreciation of investments (including options) . . . . .	\$ 81,774
Gross unrealized depreciation of investments (including options) . . . . .	(38,368)
Net unrealized appreciation of investments before foreign currency related translations . . . . .	43,406
Unrealized depreciation on foreign currency related translations . . . . .	(23)
Net unrealized appreciation of investments . . . . .	<u>\$ 43,383</u>

**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.

**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.**  
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At November 30, 2016, 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
<b>Level 2 Investments</b>								
Equity Investments								
Plains GP Holdings, L.P. — Plains AAP, L.P. <sup>(1)</sup>	(2)	(3)	690	\$ 5,200	\$24,245	\$35.16	6.3%	4.5%
Senior Notes and Secured Term Loans <sup>(4)</sup>								
Athabasca Oil Corporation	(2)	(5)	(6)	5,363	5,110	n/a	1.3	1.0
California Resources Corporation	(2)	(5)	\$12,925	8,836	10,405	n/a	2.7	1.9
Canbriam Energy Inc.	(2)	(7)	9,228	9,298	9,689	n/a	2.5	1.8
Chief Oil & Gas LLC	(2)	(7)	11,078	10,688	10,635	n/a	2.8	2.0
Great Western Petroleum, LLC	11/1/16	(7)	2,000	2,040	2,085	n/a	0.6	0.4
Jonah Energy LLC	(2)	(7)	6,413	6,002	6,076	n/a	1.6	1.1
Jupiter Resources, Inc.	(2)	(7)	11,250	9,018	9,338	n/a	2.4	1.7
Total				<u>\$56,445</u>	<u>\$77,583</u>		<u>20.2%</u>	<u>14.4%</u>
<b>Level 3 Investments<sup>(8)</sup></b>								
Equity Investments								
Capital Product Partners L.P.								
Class B Units	(2)	(5)	606	\$ 3,611	\$ 4,194	\$ 6.92	1.1%	0.8%
Senior Notes								
Pardus Oil & Gas, LLC	5/13/16	(7)	52	<u>27</u>	<u>34</u>	n/a	—	—
Total				<u>\$ 3,638</u>	<u>\$ 4,228</u>		<u>1.1%</u>	<u>0.8%</u>
Total of all restricted investments				<u>\$60,083</u>	<u>\$81,811</u>		<u>21.3%</u>	<u>15.2%</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, 2016, the Fund’s PAGP-AAP investment is valued at PAGP’s closing price. See Note 3 — Fair Value.
- (2) Security was acquired at various dates during the fiscal year ended November 30, 2016 and/or in 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 free of any restriction.
- (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) Principal amount is 6,850 Canadian dollars.
- (7) Unregistered security of a private company.
- (8) 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.

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**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.

*Option Contracts* — Transactions in option contracts for the fiscal year ended November 30, 2016 were as follows:

	<u>Number of Contracts</u>	<u>Premium</u>
<b>Call Options Written</b>		
Options outstanding at November 30, 2015 .....	5,615	\$ 602
Options written .....	18,270	1,947
Options subsequently repurchased <sup>(1)</sup> .....	(8,395)	(981)
Options exercised .....	(7,350)	(829)
Options expired .....	<u>(7,140)</u>	<u>(646)</u>
Options outstanding at November 30, 2016 <sup>(2)</sup> .....	<u>1,000</u>	<u>\$ 93</u>

- (1) The price at which the Fund subsequently repurchased the options was \$500, which resulted in net realized gains of \$481.
- (2) The percentage of total long-term investments subject to call options written was 0.8% at November 30, 2016.

*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, 2016, 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, 2016</u>
Call options written .....	Call option contracts written	\$(206)

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, 2016</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	\$1,128	\$(111)

**9. Investment Transactions**

For the fiscal year ended November 30, 2016, the Fund purchased and sold securities in the amounts of \$216,031 and \$301,294 (excluding short-term investments and options).

**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.**  
**NOTES TO FINANCIAL STATEMENTS**  
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**10. Credit Facility and Term Loan**

On November 10, 2016, the Fund entered into a new \$75,000 unsecured revolving credit facility (the "Credit Facility") with a syndicate of lenders. The Credit Facility replaces the Fund's previous \$105,000 unsecured revolving credit facility that was scheduled to mature on November 21, 2016. The Credit Facility has a two-year term maturing on November 9, 2018. The interest rate on outstanding loan balances may vary between LIBOR plus 1.60% and LIBOR plus 2.25%, depending on the Fund's asset coverage ratios. The Fund pays a fee of 0.30% per annum on any unused amounts of the Credit Facility.

For the year ended November 30, 2016, the average amount outstanding under the previous \$105,000 unsecured revolving credit facility was \$6,415 with a weighted average interest rate of 2.08%. Since the inception of the Credit Facility through November 30, 2016, the Fund had no borrowings under the Credit Facility.

Under the terms of the Credit Facility the Fund is unable to borrow unless its net assets exceed a minimum net asset threshold (\$180,625 as of November 30, 2016). As of November 30, 2016, the Fund was able to borrow under the Credit Facility because its net asset value (\$383,557) was above the minimum net asset threshold.

On July 19, 2016, the Fund amended the terms of its unsecured revolving term loan ("Term Loan"), resetting the minimum net asset threshold and reducing the commitment from \$50,000 to \$35,000. The interest rate for borrowings under the Term Loan was increased from LIBOR plus 1.30% to LIBOR plus 1.50% in conjunction with this amendment. The Term Loan has a five year commitment maturing on July 25, 2019, and 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, 2016, the average amount outstanding under the Term Loan was \$2,035 with a weighted average interest rate of 2.04%. Under the terms of the Term Loan the Fund is unable to borrow unless its net assets exceed a minimum net asset threshold (\$172,276 as of November 30, 2016). As of November 30, 2016, the Fund had \$27,000 outstanding under the Term Loan at an interest rate of 2.04% and it was able to borrow under the Term Loan because its net asset value (\$383,557) was above the minimum net asset threshold.

As of November 30, 2016, 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, 2016, the Fund had \$91,000 aggregate principal amount of Notes outstanding. During the first quarter, the Fund redeemed \$94,000 of Notes. The table below sets forth a summary of those redemptions.

<u>Date of Redemption</u>	<u>Series</u>	<u>Principal Redeemed</u>	<u>Redemption Price</u>
12/7/15	A	\$ 5,000	100.6%
12/7/15	B	15,000	106.7
12/14/15	B	20,000	106.5
12/14/15	C	20,000	102.0
1/12/16	B	19,000	106.7
2/18/16	B	6,000	102.0
2/18/16	C	9,000	102.0
		<u>\$94,000</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)

The table below sets forth the key terms of each series of Notes outstanding at November 30, 2016.

Series	Principal Outstanding November 30, 2015	Principal Redeemed	Principal Outstanding November 30, 2016	Estimated Fair Value November 30, 2016	Fixed Interest Rate	Maturity
A	\$ 5,000	\$ (5,000)	\$ —	\$ —	3.93%	3/3/16
B	60,000	(60,000)	—	—	4.62%	3/3/18
C	50,000	(29,000)	21,000	21,900	4.00%	3/22/22
D	40,000	—	40,000	39,800	3.34%	5/1/23
E	30,000	—	30,000	30,600	3.46%	7/30/21
	<u>\$185,000</u>	<u>\$(94,000)</u>	<u>\$91,000</u>	<u>\$92,300</u>		

Holders of the Notes are entitled to receive cash interest payments semi-annually (on September 3 and March 3) at the fixed rate. As of November 30, 2016, the weighted average interest rate on the outstanding Notes was 3.53%.

As of November 30, 2016, 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.

The Notes were issued in private placement offerings to institutional investors and are not listed on any exchange or automated quotation system. The Notes contain various covenants related to other indebtedness, liens and limits on the 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 the outstanding 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, 2016, the Fund was in compliance with all covenants under the agreements of the Notes.

**12. Preferred Stock**

At November 30, 2016, the Fund had 1,400,000 shares of MRP Shares outstanding, with a total liquidation value of \$35,000 (\$25.00 per share). During the first quarter, the Fund redeemed all 1,200,000 shares of its Series B MRP Shares and 200,000 shares of its Series C MRP Shares. Both series were redeemed at 102.0% of



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**NOTES TO FINANCIAL STATEMENTS**  
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liquidation value plus accumulated unpaid dividends. The table below sets forth the key terms of each series of MRP Shares outstanding at November 30, 2016.

Series	Liquidation Value November 30, 2015	Liquidation Value Redeemed	Liquidation Value November 30, 2016	Estimated Fair Value November 30, 2016	Rate	Mandatory Redemption Date
B	\$30,000	\$(30,000)	\$ —	\$ —	4.50%	3/22/20
C	40,000	(5,000)	35,000	35,200	4.06%	7/30/21
	<u>\$70,000</u>	<u>\$(35,000)</u>	<u>\$35,000</u>	<u>\$35,200</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).

On December 16, 2015, FitchRatings downgraded the rating on the Fund's MRP Shares to "A" from "AA". 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.

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, 2016, the Fund was in compliance with the asset coverage and basic maintenance requirements of its MRP Shares.

### 13. Common Stock

At November 30, 2016, the Fund had 198,600,000 shares of common stock authorized and 22,034,170 shares outstanding. On December 17, 2015, KAFA agreed to purchase \$1,438 of newly issued shares funded in part with the after-tax management fees received during the fourth quarter of fiscal 2015. The new shares were purchased at the net asset value as of the close of business on December 18, 2015 (\$10.56 per share) which represents a 2.9% premium to the closing market price. The 136,202 shares issued in connection with this purchase were distributed amongst the principals of KAFA, including KACALP, the managing member of

**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.**  
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KAFA. As of November 30, 2016, KACALP and KAFA owned 57,740 and 4,000 shares of the Fund, respectively. Transactions in common shares for the fiscal year ended November 30, 2016 were as follows:

Shares outstanding at November 30, 2015 .....	21,663,136
Shares issued in connection with purchase by investment advisor .....	136,202
Shares issued through reinvestment of distributions .....	<u>234,832</u>
Shares outstanding at November 30, 2016 .....	<u>22,034,170</u>

**14. Subsequent Events**

On December 15, 2016, the Fund declared its quarterly distribution of \$0.35 per common share for the fourth quarter. The total distribution of \$7,712 was paid January 13, 2017. Of this total, pursuant to the Fund's dividend reinvestment plan \$865 was reinvested into the Fund through open market purchases of common stock.

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.**  
**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

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

In our opinion, the accompanying statement of assets and liabilities, including the schedule of investments, and the related statements of operations, of changes in net assets applicable to common stockholders, and of cash flows and the financial highlights present fairly, in all material respects, the financial position of the Kayne Anderson Midstream/Energy Fund, Inc. (the “Fund”) at November 30, 2016, the results of its operations and its cash flows for the year then ended, the changes in its net assets applicable to common stockholders for each of the two years in the period then ended and the financial highlights for each of the periods presented, in conformity with accounting principles generally accepted in the United States of America. These financial statements and financial highlights (hereafter referred to as “financial statements”) are the responsibility of the Fund’s management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits, which included confirmation of securities at November 30, 2016, by correspondence with the custodian and brokers, provide a reasonable basis for our opinion.

PricewaterhouseCoopers LLP

Los Angeles, California  
January 27, 2017

**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”* means limited partnerships and limited liability companies that are publicly traded and are treated as partnerships for federal income tax purposes.

*“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, other than Midstream MLPs, that own and operate Midstream Assets and are taxed as corporations for federal income tax purposes. This includes companies structured like MLPs, but not treated as a publicly-traded partnership for RIC qualification purposes. 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. Midstream MLPs also include (a) MLPs that provide transportation and distribution services of energy related products through the ownership of marine transportation vessels, (b) General Partner MLPs whose assets consist of ownership interests of an affiliated Midstream MLP and (c) MLP Affiliates of Midstream MLPs.

*“MLPs”* means entities that are structured as Master Limited Partnerships and their affiliates and includes Midstream MLPs, Other MLPs and MLP Affiliates.

*“MLP Affiliates”* means affiliates of Master Limited Partnerships, substantially all of whose assets consist of i-units. 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.

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

Rev. 01/2011

<b>FACTS</b>	<b>WHAT DOES KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC. (“KMF”) DO WITH YOUR PERSONAL INFORMATION?</b>
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<b>Why?</b>	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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<b>What?</b>	<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"> <li>■ Social Security number and account balances</li> <li>■ Payment history and transaction history</li> <li>■ Account transactions and wire transfer instructions</li> </ul> <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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<b>How?</b>	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?
<b>For our everyday business purposes —</b> such as to process your transactions, maintain your account(s), respond to court orders and legal investigations, or report to credit bureaus	Yes	No
<b>For our marketing purposes —</b> to offer our products and services to you	No	No
<b>For joint marketing with other financial companies</b>	No	We don’t share
<b>For our affiliates’ everyday business purposes —</b> information about your transactions and experiences	No	We don’t share
<b>For our affiliates’ everyday business purposes —</b> information about your creditworthiness	No	We don’t share
<b>For nonaffiliates to market to you</b>	No	We don’t share

<b>Questions?</b>	Call 877-657-3863 or go to <a href="http://www.kaynefunds.com">http://www.kaynefunds.com</a>
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**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.  
 PRIVACY POLICY NOTICE  
 (UNAUDITED)**

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

**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](http://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<sup>(1)</sup>**

<b>Name<sup>(2)</sup> (Year Born)</b>	<b>Position(s) Held with Fund, Term of Office/Time of Service</b>	<b>Principal Occupations During Past Five Years</b>	<b>Other Directorships Held by Director/Officer During Past Five Years</b>
William R. Cordes (born 1948)	Director. 3-year term as Director (until the 2019 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"> <li>• Kayne Anderson Energy Development Company (“KED”)</li> <li>• Boardwalk Pipeline Partners, LP (pipeline MLP)</li> </ul> Prior: <ul style="list-style-type: none"> <li>• Northern Border Partners, L.P. (midstream MLP)</li> </ul>
Barry R. Pearl (born 1949)	Director. 3-year term (until the 2018 Annual Meeting of Stockholders)/served since inception	Management consultant to Northstar Midstream, a private developer and operator of petroleum infrastructure assets since March 2016, 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"> <li>• KED</li> <li>• Magellan Midstream Partners, L.P. (midstream MLP)</li> </ul> Prior: <ul style="list-style-type: none"> <li>• Peregrine Midstream Partners LLC (natural gas storage)</li> <li>• Seaspan Corporation (containership chartering)</li> <li>• Targa Resources Partners LP (midstream MLP)</li> <li>• TEPPCO Partners, L.P. (midstream MLP)</li> </ul>
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"> <li>• KED</li> </ul> Prior: <ul style="list-style-type: none"> <li>• Boys &amp; Girls Clubs of Houston</li> <li>• Boy Scouts of America</li> </ul>
William L. Thacker (born 1945)	Director. 3-year term (until the 2018 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"> <li>• KED</li> <li>• QEP Resources Inc. (oil and gas exploration and production company)</li> </ul> Prior: <ul style="list-style-type: none"> <li>• Copano Energy, L.L.C. (midstream MLP)</li> <li>• Pacific Energy Partners, L.P. (midstream MLP)</li> <li>• GenOn Energy, Inc. (electricity generation and sales)</li> </ul>

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

**Interested Director and Non-Director Officers**

<b>Name<sup>(2)</sup> (Year Born)</b>	<b>Position(s) Held with Fund, Term of Office/Time of Service</b>	<b>Principal Occupations During Past Five Years</b>	<b>Other Directorships Held by Director/Officer During Past Five Years</b>
Kevin S. McCarthy <sup>(3)</sup> (born 1959)	Chairman of the Board of Directors and Chief Executive Officer. 3-year term as a director (until the 2017 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 Kayne Anderson MLP Investment Company ("KYN"); Kayne Anderson Energy Total Return Fund, Inc. ("KYE"); and Kayne Anderson Energy Development Company ("KED") since inception (KYN inception in 2004; KYE inception in 2005; and KED inception in 2006).	Current: <ul style="list-style-type: none"> <li>• KYN</li> <li>• KYE</li> <li>• KED</li> <li>• ONEOK, Inc. (midstream company)</li> <li>• Range Resource Corporation (oil and gas exploration and production company)</li> </ul> Prior: <ul style="list-style-type: none"> <li>• Clearwater Natural Resources, L.P. (coal mining)</li> <li>• Direct Fuels Partners, L.P. (transmix refining and fuels distribution)</li> <li>• Emerge Energy Services LP (frac sand MLP)</li> <li>• International Resource Partners LP (coal mining)</li> <li>• K-Sea Transportation Partners LP (shipping MLP)</li> <li>• ProPetro Services, Inc. (oilfield services)</li> </ul>
J.C. Frey (born 1968)	Executive Vice President, Assistant Treasurer and Assistant Secretary. Elected annually/served since inception	Managing Partner of KACALP since 2004 and Co-Managing Partner of KAFA since 2006. Assistant Secretary and Assistant Treasurer of KYN since 2004; of KYE since 2005, and of KED since 2006. Executive Vice President of KYN, KYE and KED since June 2008.	None
James C. Baker (born 1972)	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, KYE, and KED since June 2016. Executive Vice President of KYN, KYE and KED from June 2008 to June 2016.	Current: <ul style="list-style-type: none"> <li>• KED</li> </ul> Prior: <ul style="list-style-type: none"> <li>• K-Sea Transportation Partners LP (shipping MLP)</li> <li>• Petris Technology, Inc. (data management for energy companies)</li> <li>• ProPetro Services, Inc. (oilfield services)</li> </ul>
Terry A. Hart (born 1969)	Chief Financial Officer and Treasurer. 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 and KYE since December 2005, and KED since September 2006.	Current: <ul style="list-style-type: none"> <li>• KED</li> <li>• The Source for Women (not-for-profit organization)</li> </ul>

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

**Interested Director and Non-Director Officers**

<b>Name<sup>(2)</sup> (Year Born)</b>	<b>Position(s) Held with Fund, Term of Office/Time of Service</b>	<b>Principal Occupations During Past Five Years</b>	<b>Other Directorships Held by Director/Officer During Past Five Years</b>
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 KED since September 2006. Senior Vice President of KYN and KYE since September 2012.	Prior: • VantaCore Partners LP (aggregates MLP)
Jody C. Meraz (born 1978)	Vice President. Elected annually. Elected annually/served since 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, KYE, and KED since 2011.	None
Michael O'Neil (born 1983)	Chief Compliance Officer. Elected annually/served since 2013	Chief Compliance Officer of KACALP and KAFA since March 2012 and of KYN, KED, KYE since December 2013 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 since 2005, and of KED since 2006.	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, KYN, KYE, and KED. Each Independent Director oversees two registered investment companies in the Fund Complex, the Fund and KED, 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 <http://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, <http://www.kaynefunds.com>; and
- on the SEC's website, <http://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 <http://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 <http://www.sec.gov> and may be reviewed and copied at the SEC's Public Reference Room in Washington, DC. Information on the operation of the SEC's Public Reference Room may be obtained by calling 1-800-SEC-0330. The Fund also makes its Form N-Q and Form N-30B-2 available on its website at <http://www.kaynefunds.com>.

**KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.**  
**INFORMATION REGARDING CHANGES AND CLARIFICATIONS TO INVESTMENT POLICY**  
**(UNAUDITED)**

On September 29, 2016, the Fund's Board of Directors approved the following change to its non-fundamental investment policy related to debt securities.

The prior policy allowed 10% of the Fund's total assets to be invested in unrated debt securities or debt securities that are rated less than "B-" (or an equivalent rating) by a nationally recognized ratings agency (a "Ratings Agency") of public or private companies. The revised policy allows the Fund to exclude unrated debt securities from the 10% limitation if those securities are determined by KA Fund Advisors, LLC (the "Advisor" or "KAFA") to be of comparable or better credit quality to a "B-" rated security based on a Ratings Agency's corporate ratings of the issuers of such securities or the ratings of other securities issued by the same issuers.

The revised policy related to debt securities will be effective January 1, 2017, as follows:

"The Fund may invest up to but not more than 30% of its total assets in debt securities of Energy Companies, including below-investment-grade debt securities (commonly referred to as "junk bonds" or "high yield bonds"). Up to but not more than 10% of the Fund's total assets may be invested in unrated debt securities or below-investment-grade debt securities that are rated less than "B-" (or an equivalent rating) by a nationally recognized ratings agency (a "Ratings Agency"). The balance of such debt investments may be invested in securities which are rated at least "B-" (or an equivalent rating) by a Ratings Agency or, if such securities are unrated, are determined by the Advisor to be of comparable quality based on a Ratings Agency's corporate ratings for the issuers of such securities or ratings of other securities issued by such issuers. For the purposes of determining if an investment satisfies this test, the Fund will look to the highest credit rating on such debt investment. The debt securities in which the Fund invests may have varying maturities which will generally not exceed 30 years."

On September 29, 2016, the Fund's Board of Directors also approved the following clarifications to its non-fundamental investment policy related to (i) investments in equity and debt securities of Master Limited Partnerships (the "25% MLP test") and (ii) debt securities.

These clarification were effective upon approval by the Fund's Board of Directors and are provided below:

"The Fund may directly invest up to 25% (or such higher amount as permitted by any applicable tax diversification rules) of its total assets in equity or debt securities of Master Limited Partnerships (the "25% MLP test"). This limit does not apply to securities issued by MLP Affiliates, which are not treated as publicly traded partnerships for federal income tax purposes. The Fund may exceed the 25% MLP test one or more days during a fiscal quarter but will meet such test at fiscal quarter end.

Unless otherwise stated, all investment restrictions apply at the time of purchase and the Fund will not be required to reduce a position due solely to market value fluctuations or a change in a security's credit rating."

**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 a privately negotiated transactions.



## **Directors and Corporate Officers**

Kevin S. McCarthy

Chairman of the Board of Directors  
and Chief Executive Officer

William R. Cordes

Director

Barry R. Pearl

Director

Albert L. Richey

Director

William L. Thacker

Director

James C. Baker

President

Terry A. Hart

Chief Financial Officer and Treasurer

David J. Shladovsky

Secretary

Michael J. O'Neil

Chief Compliance Officer

J.C. Frey

Executive Vice President, Assistant  
Secretary and Assistant Treasurer

Ron M. Logan, Jr.

Senior Vice President

Jody C. Meraz

Vice President

### **Investment Adviser**

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

### **Administrator**

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

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

### **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  
55 Second Street, 24th Floor  
San Francisco, CA 94105

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

**KMF**  
**LISTED**  
**NYSE**

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.