

Kayne Anderson MLP Investment Company Announces Distribution of \$0.45 per Share for Q1 2017

Houston, TX – April 3, 2017 – Kayne Anderson MLP Investment Company (the "Company") (NYSE: KYN) announced today its quarterly distribution of \$0.45 per share for the quarter ended February 28, 2017. The distribution will be payable on April 21, 2017 to common stockholders of record on April 13, 2017, with an ex-dividend date of April 11, 2017.

Last quarter, the Company guided to a reduction in our distribution as a result of the trend of MLPs (or GPs) with lower yields acquiring MLPs with a higher yield and this trend's impact on the Company's net distributable income, or NDI. Since the time we provided this guidance, two additional transactions have been announced: Williams Partners reduced its distribution in connection with its acquisition of the general partner and incentive distribution rights from its parent and the acquisition of ONEOK Partners by its parent, ONEOK, Inc. Both transactions will have the effect of reducing the Company's NDI. "The Williams and ONEOK transactions were viewed favorably by the market. Both MLPs are top 10 positions in our portfolio, and their performance was a significant factor in our 11.5% increase in adjusted NAV during the first quarter. However, in light of the negative impact of these transactions on NDI, we are decreasing our distribution by an amount greater than we had guided to last quarter. The current distribution level reflects all transactions that have been announced or are currently anticipated," said Kevin McCarthy, the CEO of the Company.

The Company estimates that 100% of its distribution for the quarter ended February 28, 2017 will be treated as a return of capital for tax purposes. This estimate is based on the Company's anticipated earnings and profits for fiscal 2017 and its accumulated earnings and profits as of February 28, 2017. The final determination of the tax character of the distribution will be made in early 2018 when the Company can determine its actual earnings and profits for the full year (including gains and losses on the sale of securities during fiscal 2017) and may differ substantially from this preliminary information.

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Kayne Anderson MLP Investment Company is a non-diversified, closed-end management investment company registered under the Investment Company Act of 1940, whose common stock is traded on the NYSE. The Company's investment objective is to obtain a high after-tax total return by investing at least 85% of its total assets in energy-related master limited partnerships and their affiliates (collectively, "MLPs"), and in other companies that, as their principal business, operate assets used in the gathering, transporting, processing, storing, refining, distributing, mining or marketing natural gas, natural gas liquids (including propane), crude oil, refined petroleum products or coal.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS: This press release 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 differ from the Company's historical experience and its present expectations or projections indicated in any forward-looking statements. These risks include, but are not limited to, changes in economic and political conditions; regulatory and legal changes; MLP industry risk; leverage risk; valuation risk; interest rate risk; tax risk; and other risks discussed in the Company's filings with the

SEC. You should not place undue reliance on forward-looking statements, which speak only as of the date they are made. The Company undertakes no obligation to publicly update or revise any forward-looking statements made herein. There is no assurance that the Company's investment objectives will be attained.

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