

Kayne Anderson MLP Investment Company Provides Unaudited Balance Sheet Information and Announces its Net Asset Value and Asset Coverage Ratios at August 31, 2016

Houston, TX – September 2, 2016 – Kayne Anderson MLP Investment Company (the “Company”) (NYSE: KYN) today provided a summary unaudited statement of assets and liabilities and announced its net asset value and asset coverage ratios under the Investment Company Act of 1940 (the “1940 Act”) as of August 31, 2016.

As of August 31, 2016, the Company’s net assets were \$2.2 billion, and its net asset value per share was \$19.31. As of August 31, 2016, the Company’s asset coverage ratio under the 1940 Act with respect to senior securities representing indebtedness was 438% and the Company’s asset coverage ratio under the 1940 Act with respect to total leverage (debt and preferred stock) was 287%.

Kayne Anderson MLP Investment Company
Statement of Assets and Liabilities
August 31, 2016
(Unaudited)

	(in millions)	Per Share
Investments	\$ 3,825.5	\$ 33.75
Cash and cash equivalents	92.7	0.82
Deposits	0.1	-
Accrued income	0.9	0.01
Receivable for securities sold	15.4	0.14
Income tax receivable	19.5	0.17
Other assets	9.6	0.07
Total assets	<u>3,963.7</u>	<u>34.96</u>
Senior notes	767.0	6.77
Preferred stock	404.0	3.56
Total leverage	<u>1,171.0</u>	<u>10.33</u>
Payable for securities purchased	16.7	0.15
Other liabilities	23.1	0.20
Deferred income tax liability	563.4	4.97
Total liabilities	<u>603.2</u>	<u>5.32</u>
Net assets	<u>\$ 2,189.5</u>	<u>\$ 19.31</u>

The Company had 113,363,530 common shares outstanding as of August 31, 2016.

Long-term investments were comprised of Midstream MLP (91%), Midstream Company (5%), General Partner MLP (2%) and Shipping MLP (2%).

The Company's ten largest holdings by issuer at August 31, 2016 were:

	<u>Units / Shares</u> (in thousands)	<u>Amount</u> (\$ millions)	<u>Percent of</u> <u>Long-Term</u> <u>Investments</u>
1. Enterprise Products Partners L.P. (Midstream MLP)	18,831	\$497.1	13.0%
2. Energy Transfer Partners, L.P. (Midstream MLP)	10,490	419.0	11.0%
3. Williams Partners L.P. (Midstream MLP)	10,728	408.7	10.7%
4. ONEOK Partners, L.P. (Midstream MLP)	6,858	265.7	6.9%
5. MPLX LP (Midstream MLP)*	6,883	241.7	6.3%
6. Plains All American Pipeline, L.P. (Midstream MLP)	8,373	235.0	6.1%
7. DCP Midstream Partners, LP (Midstream MLP)	6,157	201.8	5.3%
8. Western Gas Partners, LP (Midstream MLP)**	3,841	193.7	5.1%
9. Buckeye Partners, L.P. (Midstream MLP)	2,498	175.5	4.6%
10. Magellan Midstream Partners, L.P. (Midstream MLP)	2,304	162.0	4.2%

* Includes 4,628 common units (\$153.3 million) and 2,255 preferred units (\$88.4 million).

** Includes 3,707 common units (\$186.5 million) and 134 preferred units (\$7.2 million).

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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 Fund'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 Fund'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 Fund undertakes no obligation to publicly update or revise any forward-looking statements made herein. There is no assurance that the Fund's investment objective will be attained.

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