

Kayne Anderson MLP Investment Company Provides Unaudited Balance Sheet Information and Announces its Net Asset Value and Asset Coverage Ratios at March 31, 2017

Houston, TX – April 3, 2017 – 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 March 31, 2017.

As of March 31, 2017, the Company's net assets were \$2.3 billion, and its net asset value per share was \$20.60. As of March 31, 2017, the Company's asset coverage ratio under the 1940 Act with respect to senior securities representing indebtedness was 416% and the Company's asset coverage ratio under the 1940 Act with respect to total leverage (debt and preferred stock) was 306%.

Kayne Anderson MLP Investment Company Statement of Assets and Liabilities March 31, 2017 (Unaudited)

	(in millions)	Per	Share
Investments	\$ 4,208.5	\$	36.91
Cash and cash equivalents	2.0		0.02
Deposits	0.3		-
Accrued income	0.6		0.01
Receivable for securities sold	13.7		0.12
Income tax receivable	7.9		0.07
Other assets	8.0		0.07
Total assets	4,241.0		37.20
Term loan	72.0		0.63
Senior notes	767.0		6.73
Preferred stock	300.0		2.63
Total leverage	1,139.0		9.99
Payable for securities purchased	12.3		0.11
Other liabilities	14.3		0.12
Deferred income tax liability	727.1		6.38
Total liabilities	753.7		6.61
Net assets	\$ 2,348.3	\$	20.60

The Company had 114,011,997 common shares outstanding as of March 31, 2017.

Long-term investments were comprised of Midstream MLP (93%), Midstream Company (5%) and Shipping MLP (2%).

The Company's ten largest holdings by issuer at March 31, 2017 were:

		Units / Shares (in thousands)	Amount (\$ millions)	Percent of Long-Term Investments
1.	Enterprise Products Partners L.P. (Midstream MLP)	19,085	\$526.9	12.5%
2.	Williams Partners L.P. (Midstream MLP)	9,661	394.5	9.4%
3.	Energy Transfer Partners, L.P. (Midstream MLP)*	10,691	390.4	9.3%
4.	ONEOK Partners, L.P. (Midstream MLP)**	5,971	322.4	7.7%
5.	Plains All American Pipeline, L.P. (Midstream MLP)	8,962	283.3	6.7%
6.	MPLX LP (Midstream MLP)***	7,009	260.9	6.2%
7.	Western Gas Partners, LP (Midstream MLP)****	3,841	232.2	5.5%
8.	DCP Midstream Partners, LP (Midstream MLP)	5,442	213.5	5.1%
9.	Buckeye Partners, L.P. (Midstream MLP)	2,748	188.4	4.5%
10.	Targa Resources Corp. (Midstream Company)	3,137	187.9	4.5%

^{*} 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 11.5% of long-term investments as of March 31, 2017.

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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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^{**} On February 1, 2017, ONEOK, Inc. ("OKE") and ONEOK Partners, L.P. ("OKS") announced an agreement to combine in a stock-for-unit merger. As of March 31, 2017, the Company did not own any OKE shares.

^{***} Includes 4,753 common units (\$171.5 million) and 2,256 preferred units (\$89.4 million).

^{****} Includes 3,774 common units (\$228.1 million) and 67 preferred units (\$4.1 million).