

Kayne Anderson MLP Investment Company Completes Private Placement of Senior Notes

Houston, TX – May 3, 2012 – Kayne Anderson MLP Investment Company (the “Company”) (NYSE: KYN) announced today that it has completed a private placement with institutional investors of \$175 million of senior unsecured notes (“Senior Notes”). The table below sets forth the key terms:

| Series | Amount (\$ in millions) | Interest Rate | Maturity |
|--------|----------------------------|---------------|----------|
| X | \$ 14 | 2.46% | 5/3/15 |
| Y | 20 | 2.91% | 5/3/17 |
| Z | 15 | 3.39% | 5/3/19 |
| AA | 15 | 3.56% | 5/3/20 |
| BB | 35 | 3.77% | 5/3/21 |
| CC | 76 | 3.95% | 5/3/22 |
| Total | \$ 175 | | |

Net proceeds from the offering will be used to repay borrowings under the Company’s revolving credit facility, to refinance the Series I Senior Notes that mature in June 2012 (\$60 million principal amount), to make new portfolio investments and for general corporate purposes.

The Senior Notes will not be registered under the Securities Act of 1933 and may not be offered or sold in the United States absent registration or an applicable exemption from registration.

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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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