

Kayne Anderson MLP Investment Company Announces Exercise by the Underwriters of the Option to Purchase Additional Common Stock

Houston, TX – September 9, 2010 – Kayne Anderson MLP Investment Company (the “Company”) (NYSE: KYN) announced today that the underwriters of its common stock offering exercised their option to purchase an additional 793,877 shares at a price of \$26.30 per share. The option was granted to the underwriters in connection with the Company’s public offering of 7,250,000 shares of common stock which closed on August 11, 2010. Today the Company received approximately \$20 million in total net proceeds from the over-allotment option which will be used to make additional portfolio investments that are consistent with the Company’s investment objective and for general corporate purposes.

This press release does not constitute an offer to sell or a solicitation to buy the securities described herein, nor shall there be any sale of these securities in any state or jurisdiction in which such offer or solicitation or sale would be unlawful prior to registration or qualification under the laws of such state or jurisdiction. A registration statement relating to these securities was filed with, and has been declared effective by, the Securities and Exchange Commission.

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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 New York Stock Exchange. 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 of natural gas, natural gas liquids, 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 objective will be attained.

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