MLP Investment Company

Kayne Anderson MLP Investment Company Prices Public Offering of Series E Mandatory Redeemable Preferred Shares

Houston, TX – March 14, 2012 – Kayne Anderson MLP Investment Company (the "Company") (NYSE: KYN) announced the pricing of a public offering of preferred stock. The Company agreed to sell 4,800,000 shares of Series E Mandatory Redeemable Preferred Shares ("Series E MRP Shares") at a price of \$25.00 per share. The Series E MRP Shares pay cash dividends at a rate of 4.25% per annum and have a mandatory redemption date of April 1, 2019. The Company will use the net proceeds from the offering of approximately \$117 million to make investments in portfolio companies in accordance with its investment objective and policies, to repay indebtedness, to purchase up to \$10 million of its Series A Mandatory Redeemable Preferred Shares and for general corporate purposes. The offering is scheduled to close on March 21, 2012.

Merrill Lynch, Pierce, Fenner & Smith Incorporated, Citigroup Global Markets Inc. and Wells Fargo Securities, LLC are joint book-running managers. A copy of the prospectus supplement and base prospectus relating to the offering may be obtained from the following addresses:

Merrill Lynch, Pierce, Fenner & Smith Incorporated Attn: Prospectus Department 4 World Financial Center New York, NY 10080 Email: dg.prospectus_requests@baml.com Citigroup Global Markets Inc. Attn: Prospectus Department Brooklyn Army Terminal 140 58th Street, 8th Floor Brooklyn, NY 11220 Telephone: 800-831-9146 Email: batprospectusdept@citi.com

Wells Fargo Securities, LLC Attn: Capital Markets Client Support 1525 West W. T. Harris Blvd., NC0675 Charlotte, NC 28262 Telephone: 800-326-5897 Email: cmclientsupport@wellsfargo.com

The offering is made pursuant to an existing effective shelf registration statement on Form N-2 previously filed with the Securities and Exchange Commission. The offering of these securities will be made only by means of a prospectus.

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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.

CONTACT:

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