

Kayne Anderson MLP Investment Company Repurchases \$66 Million in Floating Rate Senior Notes and Provides Update on Leverage Ratios

Houston, TX – December 1, 2008 – Kayne Anderson MLP Investment Company (the “Company”) (NYSE: KYN) announced that on Friday, November 28, 2008, it completed the repurchase of \$66 million aggregate principal amount of its floating rate senior notes series H, J and L (the “Senior Notes”) at par value, as detailed in the table below. The Company utilized cash on hand to repurchase the Senior Notes to comply with asset coverage ratios as required by the Investment Company Act of 1940 (the “1940 Act”). As of Wednesday, November 26, 2008, the Company’s asset coverage ratio under the 1940 Act with respect to senior securities representing indebtedness was 330%, and the Company’s asset coverage ratio under the 1940 Act with respect to total leverage (debt and preferred stock) was 265% pro forma for the \$66 million repurchase of Senior Notes. These ratios are above the required levels of 300% and 200%, respectively. The Company will announce its net asset value and asset coverage ratios as of November 30, 2008 after market close on Tuesday, December 2, 2008.

Series	Principal Before Redemption	Principal Redeemed	Principal Remaining	Maturity
H	25,000,000	5,000,000	20,000,000	6/19/2011
J	40,000,000	16,000,000	24,000,000	6/19/2012
L	45,000,000	45,000,000	-	6/19/2013
Total	\$110,000,000	\$66,000,000	\$44,000,000	

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, 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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SOURCE: Kayne Anderson MLP Investment Company