Kayne Anderson Midstream/Energy Fund

Kayne Anderson Midstream/Energy Fund Provides Unaudited Balance Sheet Information and Announces its Net Asset Value and Asset Coverage Ratios at May 31, 2012

HOUSTON, TX – June 5, 2012 – Kayne Anderson Midstream/Energy Fund, Inc. (the "Fund") (NYSE: KMF) 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 May 31, 2012.

As of May 31, 2012, the Fund's net assets were \$594 million and its net asset value per share was \$27.25. As of May 31, 2012, the Fund's asset coverage ratio under the 1940 Act with respect to senior securities representing indebtedness was 449% and the Fund's asset coverage ratio under the 1940 Act with respect to total leverage (debt and preferred stock) was 334%.

Kayne Anderson Midstream/Energy Fund, Inc. Statement of Assets and Liabilities May 31, 2012 (Unaudited)

	(in millions)	Per Share
Investments	\$ 820.6	\$ 37.63
Cash	33.0	1.51
Deposits	0.3	0.01
Accrued income	3.2	0.15
Receivable for securities sold	4.7	0.22
Other assets	2.7	0.12
Total assets	864.5	39.64
Credit facility borrowings	24.0	1.10
Senior notes	165.0	7.57
Preferred stock	65.0	2.98
Total leverage	254.0	11.65
Payable for securities purchased	12.0	0.55
Other liabilities	4.3	0.19
Total liabilities	16.3	0.74
Net assets	\$ 594.2	\$ 27.25
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The Fund had 21.81 million common shares outstanding as of May 31, 2012.

As of May 31, 2012, equity and debt investments were 84% and 16%, respectively, of the Fund's long-term investments of \$821 million. Long-term investments were comprised of Midstream Companies (42%), MLP and MLP Affiliate (38%), Other Energy (3%), Other (1%) and Debt (16%).

The Fund's ten largest holdings by issuer at May 31, 2012 were:

		Units (in thousands)	Amounts (\$ millions)	Percent of Long-Term Investments
1.	The Williams Companies, Inc. (Midstream Company)	2,393	\$73.0	8.9%
2.	Kinder Morgan, Inc. (Midstream Company)*	3,304	67.0	8.2%
3.	Kinder Morgan Management, LLC (MLP Affiliate)	892	63.3	7.7%
4.	Enbridge Energy Management, L.L.C. (MLP Affiliate)	1,115	34.8	4.2%
5.	ONEOK, Inc. (Midstream Company)	388	32.2	3.9%
6.	Targa Resources Corp. (Midstream Company)	567	25.1	3.1%
7.	Buckeye Partners, L.P. (Midstream MLP)	543	24.7	3.0%
8.	Golar LNG Partners LP (Midstream Company)	741	23.6	2.9%
9.	Spectra Energy Corp. (Midstream Company)	819	23.5	2.9%
10.	CenterPoint Energy, Inc. (Midstream Company)	1,043	21.1	2.6%

^{*} Includes 1,440 warrants (\$3.3 million) and 1,863 common shares (\$63.7 million).

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The Fund 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 Fund's investment objective is to provide a high level of total return with an emphasis on making quarterly cash distributions to its stockholders by investing at least 80% of its total assets in securities of companies in the Midstream/Energy Sector, consisting of: (a) Midstream Master Limited Partnerships ("MLPs"), (b) Midstream Companies, (c) Other MLPs and (d) Other Energy Companies. The Fund anticipates that the majority of its investments will consist of investments in Midstream MLPs and Midstream Companies. See Glossary of Key Terms on page ii of the Prospectus for definitions of certain key terms.

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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