

Kayne Anderson MLP Investment CO
Form N-23C-2
September 25, 2015

Securities and Exchange Commission

Washington, DC 20549

Rule 23c-2 Notice of Intention to

Redeem Securities

of

Kayne Anderson MLP Investment Company

811 Main Street, 14th Floor

Houston, Texas 77002

under the

Investment Company Act of 1940

Securities Act File No. 333-165775

Investment Company Act File No. 811-21593

(1) Title of the class of securities of Kayne Anderson MLP Investment Company (the Company) to be redeemed: Series HH Floating Rate Senior Notes (CUSIP 486606 AG1 and CUSIP 486606 AJ5) (the Series HH Notes).

(2) Date on which the securities are to be called or redeemed:
The date fixed for redemption of the Series HH Notes is October 26, 2015.

(3) Applicable provisions of the governing instrument pursuant to which the securities are to be redeemed:
The Series HH Notes are to be redeemed pursuant to Section 2.03(a) of the First Supplemental Indenture of Trust dated as of August 22, 2013, between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee, and the Second Supplemental Indenture of Trust dated as of February 7, 2014, between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee (collectively, the Supplemental Indenture).

(4) The principal amount and the basis upon which the securities to be redeemed are to be selected:
The Company will redeem \$125,000,000 aggregate principal amount of Series HH Notes, at a total redemption price of \$125,000,000, plus (i) accumulated but unpaid interest thereon to, but not including, the redemption date; (ii) an aggregate prepayment premium equal to \$2,500,000 and (iii) LIBOR breakage amounts (if any). Given that the Series

HH Notes are represented by global securities, the beneficial interests therein shall be selected for prepayment by the securities depository in accordance with its customary procedures as contemplated by the Supplemental Indenture.

SIGNATURE

Pursuant to the requirement of Rule 23c-2 under the Investment Company Act of 1940, the Company has duly caused this Notice of Intention to Redeem Securities to be signed on its behalf by the undersigned on this 24th day of September, 2015.

KAYNE ANDERSON MLP INVESTMENT
COMPANY

By: /s/ Kevin McCarthy

Name: Kevin McCarthy

Title: Chief Executive Officer and President