

Kayne Anderson MLP Investment CO  
Form 8-A12B  
March 15, 2012

As filed with the Securities and Exchange Commission on March 15, 2012

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

**FORM 8-A**

**FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES  
PURSUANT TO SECTION 12(b) OR 12(g) OF THE  
SECURITIES EXCHANGE ACT OF 1934**

**KAYNE ANDERSON MLP INVESTMENT COMPANY**  
(Exact name of registrant as specified in its charter)

**Maryland**  
(State of incorporation or organization)

**56-2474626**  
(I.R.S. Employer Identification No.)

**717 Texas Avenue, Suite 3100  
Houston, Texas 77002  
(713) 493-2020**

(Address of principal executive offices, including zip code)

**Securities to be registered pursuant to Section 12(b) of the Act:**

<p>Title of each class to be so registered</p> <p><b>Series E Mandatory Redeemable Preferred Shares, \$25.00 liquidation preference per share</b></p>	<p>Name of each exchange on which each class is to be registered</p> <p><b>New York Stock Exchange</b></p>
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If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), please check the following box

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), please check the following box

Securities Act registration statement file number to which this form relates: 333-177550

Securities to be registered pursuant to Section 12(g) of the Act: **None.**

**Item 1. Description of Registrant's Securities to be Registered.**

The shares (the Shares) to be registered hereunder are shares of Series E Mandatory Redeemable Preferred Shares, \$25.00 liquidation preference per share, of Kayne Anderson MLP Investment Company (the Registrant). A description of the Shares is contained under the heading Description of Mandatory Redeemable Preferred Shares in the prospectus supplement filed on March 15, 2012 (the Prospectus Supplement) with the U.S. Securities and Exchange Commission (the Commission) pursuant to Rule 497 under the Securities Act of 1933, as amended (the Securities Act), and such description is incorporated herein by reference. The Prospectus Supplement relates to the Registrant's Registration Statement on Form N-2, as amended, which was initially filed with the Commission under the Securities Act and the Investment Company Act of 1940, as amended, on October 26, 2011 (Registration Nos. 333-177550 and 811-21593, respectively).

**Item 2. Exhibits.**

1. The Registrant's Articles of Amendment and Restatement (incorporated herein by reference from the Registrant's Pre-Effective Amendment No. 3 to its Registration Statement on Form N-2 (File Nos. 333-116479 and 811-21593) as filed with the Commission on September 1, 2004).
2. The Registrant's Articles Supplementary for Series A Mandatory Redeemable Preferred Shares (incorporated herein by reference from the Registrant's Pre-Effective Amendment No. 2 to its Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Commission on July 6, 2010).
3. The Registrant's Articles Supplementary for Series B Mandatory Redeemable Preferred Shares and Series C Mandatory Redeemable Preferred Shares (incorporated herein by reference from the Registrant's Post-Effective Amendment No. 2 to its Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Commission on February 14, 2011).
4. The Registrant's Articles Supplementary for Series D Mandatory Redeemable Preferred Shares (incorporated herein by reference from the Registrant's Post-Effective Amendment No. 5 to its Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Commission on May 5, 2011).
5. The Registrant's Articles Supplementary for Series E Mandatory Redeemable Preferred Shares (incorporated herein by reference from the Registrant's Post-Effective Amendment No. 2 to its Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Commission on March 15, 2012).
6. The Registrant's Amended and Restated Bylaws (incorporated herein by reference from the Registrant's Pre-Effective Amendment No. 4 to its Registration Statement on Form N-2 (File Nos. 333-116479 and 811-21593) as filed with the Commission on September 16, 2004).
7. Form of Stock Certificate for the Registrant's Common Stock (incorporated herein by reference from the Registrant's Registration Statement on Form N-2 (File Nos. 333-140488 and 811-21593) as filed with the Securities and Exchange Commission on February 7, 2007).
8. Form of Stock Certificate for the Registrant's Series D Mandatory Redeemable Preferred Shares (incorporated herein by reference from the Registrant's Post-Effective Amendment No. 5 to its Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Commission on May 5, 2011).
9. Form of Stock Certificate for the Registrant's Series E Mandatory Redeemable Preferred Shares (incorporated herein by reference from the Registrant's Post-Effective Amendment No. 2 to its Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Commission on March 15, 2012).
10. Form of Fitch Rating Guidelines (incorporated herein by reference from the Registrant's Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Commission on October 26, 2011).

**SIGNATURE**

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: March 15, 2012

Kayne Anderson MLP Investment Company

By: /s/ JAMES C. BAKER

Name: James C. Baker

Title: Executive Vice President

-3-