Kayne Anderson MLP Investment CO Form SC 13D/A May 11, 2010

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549 SCHEDULE 13D/A
Under the Securities Exchange Act of 1934
(Amendment No. 2) Kayne Anderson MLP Investment Company (KYN)

(Name of Issuer) Auction Rate Preferred Stock

(Title of Class of Securities) 486606205

(CUSIP Number) Karpus/ Bulldog Group 183 Sully's Trail Pittsford, New York 14534 (585) 586-4680

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications) May 11, 2010

(**Date of Event which Requires Filing of this Statement**) If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D/A, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or

240.13d-1(g), check the following box.

CUSIP No.: 486606205	
. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only). Karpus/ Bulldog Group	
2. Check the Appropriate Box if a Member of a Group (See Instructions) a) X b) 	
S. SEC Use Only	
Source of Funds (See Instructions) WC	
5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) N/A	
5. Citizenship or Place of Organization USA	
Number of Shares Beneficially Owned by Each reporting Person With:	
Sole Voting Power N/A 8. Shared Voting Power N/A 9. Sole Dispositive Power N/A 10. Shared Dispositive Power N/A	
1. Aggregate Amount Beneficially Owned by Each Reporting Person 946	
2. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) N/A	
3. Percent of Class Represented by Amount in Row (11) 31.5%	
4. Type of Reporting Person (See Instructions) N/A	

CUSIP No.: 486606205
1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only). Karpus Management, Inc., d/b/a Karpus Investment Management
2. Check the Appropriate Box if a Member of a Group (See Instructions) (a) X (b) 
3. SEC Use Only
4. Source of Funds (See Instructions) WC
5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) N/A
6. Citizenship or Place of Organization USA
Number of Shares Beneficially Owned by Each reporting Person With:
7. Sole Voting Power 860 8. Shared Voting Power 0 9. Sole Dispositive Power 860 10. Shared Dispositive Power 0
11. Aggregate Amount Beneficially Owned by Each Reporting Person 860
12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) N/A
13. Percent of Class Represented by Amount in Row (11) 28.67%

14. Type of Reporting Person (See Instructions) IA

CUSIP No.: 486606205
1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only). Bulldog Investors, Phillip Goldstein and Andrew Dakos
2. Check the Appropriate Box if a Member of a Group (See Instructions) (a) X (b) 
3. SEC Use Only
4. Source of Funds (See Instructions) WC
5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) N/A
6. Citizenship or Place of Organization USA
Number of Shares Beneficially Owned by Each reporting Person With:
7. Sole Voting Power 86 8. Shared Voting Power N/A 9. Sole Dispositive Power 86 10. Shared Dispositive Power N/A
11. Aggregate Amount Beneficially Owned by Each Reporting Person 86
12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) N/A
13. Percent of Class Represented by Amount in Row (11) 2.87%
14. Type of Reporting Person (See Instructions) N/A

The following constitutes Amendment No. 2 ("Amendment No. 2") to the Schedule 13D filed by the undersigned. This Amendment amends the original Schedule 13D as specifically set forth.

Item 3. Source and Amount of Funds or Other Considerations. KIM, an independent investment advisor, has accumulated 860 shares of KYN Auction Rate Preferred Stock on behalf of accounts that are managed by KIM (the “Accounts”) under limited powers of attorney, which represents 28.67% of the outstanding shares. All funds that have been utilized in making such purchases are from such Accounts. Bulldog Investors, Phillip Goldstein, and Andrew Dakos have accumulated 86 shares of KYN Auction Rate Preferred Stock on behalf of the accounts that are managed by them. Item 5. Interest in Securities of the Issuer. (a.) and (b.) The Karpus/ Bulldog Group is deemed to be the beneficial owners of 946 shares of KYN Auction Rate Preferred Stock or 31.50% of the outstanding shares. KIM has the sole power to dispose of and to vote all of such shares under limited powers of attorney. Karpus Investment Management represents beneficial ownership of 860 shares or 28.67% of the outstanding shares. George W. Karpus presently owns 14 shares. Mr. Karpus purchased shares on November 5, 2008 at \$16,250 (4 shares), and on November 10, 2008 at \$19,125 (10 shares). Dana R. Consler presently owns 1 share. Mr. Consler purchased 1 shares on February 5, 2009 at \$18,625. Cody B. Bartlett Jr. presently owns 2 shares. Mr. Bartlett purchased 2 shares on November 10, 2008 at \$19,125. JoAnn Van Degriff presently owns 1 share. Ms. Van Degriff purchased 1 share on November 10, 2009 at \$19,125. None of the other principals of KIM presently own shares of KYN Auction Rate Preferred Stock. Bulldog Investors, Phillip Goldstein and Andrew Dakos are deemed to be the beneficial owner of 86 shares of KYN Auction Rate Preferred Stock or 2.87% of the outstanding shares. Power to vote and dispose of such securities resides with Mr. Goldstein and Mr. Dakos.

(c) During the last sixty days there has been no transactions of auction rate preferred stock:

(d) Beneficiaries of managed accounts are entitled to receive any dividends or sales proceeds. Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer. The filing persons have formed an informal group (the "Karpus/ Bulldog Group") with the objective of affording all preferred shareholders of the issuer an opportunity to obtain full value for their preferred shares. The Karpus/ Bulldog Investment Group beneficially owns 31.5% of the issuer's outstanding Auction Rate Preferred Stock. The members of the Karpus/ Bulldog Group have not agreed to jointly take any specific measures to achieve the group's objective and they have no agreement to buy, sell, hold or vote their shares together. Any member of the Karpus/ Bulldog Group may take actions it deems to be consistent with the group's objective without the consent of any other members of the group. In addition, any member of the Karpus/ Bulldog Group may act in the best interests of its own clients regardless of whether such action is in the best interest of the group. Item 7. Materials to be Filed as Exhibits. Karpus Investment Management sent a letter to the Fund on May 11, 2010 withdrawing their preferred share director nominee (attached as Exhibit 1).

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete, and correct.

Karpus Management, Inc.

By: /s/

Name: Cody B. Bartlett Jr., CFA

Title: Managing Director of Investments

Date: May 11, 2010

Bulldog Investors

By: /s/

Name: Phillip Goldstein Date: May 11, 2010

By: /s/

Name: Andrew Dakos Date: May 11, 2010

EXHIBIT 1

Letter to the Fund Transmitted May 11, 2010

> David Shladovsky, Secretary and Chief Compliance Officer Kayne Anderson MLP Investment Company 717 Texas Avenue, Suite 3100 Houston, Texas 77002

May 11, 2010

Re: Kayne Anderson MLP Investment Company ("KYN" or the "Fund")

Mr. Shladovsky:

On December 14, 2010, Karpus Management, Inc. ("Karpus") provided advanced notice of its intent to nominate Phillip Goldstein to be solely elected by the holders of the Kayne Anderson MLP Investment Company Series D Preferred Shares, cusip no. 486606205 ("KYN Preferred Shares") at the next annual meeting of shareholders to be held on June 15, 2010, or any postponement or adjournment thereof (the "2010 Annual Meeting"). Due to the Fund's recent filing with the U.S. Securities and Exchange Commission on Form N-23C-2, filed on May 7, 2010, we hereby withdraw our nomination for Mr. Goldstein conditioned upon the Fund fulfilling its stated objection of redeeming all of the KYN Series D Preferred Shares at par value on May 28, 2010. We commend the Board in its decision to provide liquidity for its preferred shareholders.

Sincerely,

Cody B. Bartlett Jr., CFA Managing Director of Investments

cc: Kevin S. McCarthy, Chairman, CEO & President (713) 655-7359 David A. Hearth, Esq. (415) 856-7107