



DIVISION OF
INVESTMENT MANAGEMENT

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

February 14, 2014

John F. Della Grotta, Esq.
Paul Hastings LLP
695 Town Center Drive, 17th Floor
Costa Mesa, California 92626-1924

Re: Kayne Anderson MLP Investment Company
File Nos. 333-193497 and 811-21593

Dear Mr. Della Grotta:

On January 23, 2014, you filed a registration statement on Form N-2 for Kayne Anderson MLP Investment Company (the "Fund") in connection with the shelf registration of its common stock, preferred stock, and debt securities. The registration statement was also filed in connection with the shelf registration of an aggregate principal amount of \$300,000 of the Fund's debt securities on behalf of selling noteholders. We have reviewed the registration statement, and have provided our comments below. For convenience, we generally organized our comments using headings, defined terms, and page numbers from the registration statement. Where a comment is made in one location, it is applicable to all similar disclosure appearing elsewhere in the registration statement.

PROSPECTUS

Cover Page

1. The third paragraph on page 2 of the cover page states that the Fund's debt securities are unsecured obligations that rank on parity with the Fund's obligations to any unsecured creditors and any unsecured senior securities representing the Fund's indebtedness, and junior to the Fund's obligations to any secured creditors. However the form of prospectus supplement

submitted with the registration statement indicates that the debt being registered in this shelf registration statement will be called “Senior Notes.” Since the debt to be issued pursuant to this registration statement will not be “senior” to any of the Fund’s debt, and will be junior to the Fund’s secured debt, please confirm to us that the prospectus supplement to be used in connection with the offering of this debt will not refer to the debt as “senior.”

Prospectus Summary — The Offering (Page 3)

2. The first paragraph of this section states that the Fund may offer its securities, or the debt securities of selling noteholders, at prices and on terms to be set forth in one or more prospectus supplements to this prospectus. Please confirm to us that, concurrent with the filing of each prospectus supplement, a legality opinion will be filed with a post-effective amendment regarding each such future offering of the Fund’s securities or the debt securities of selling noteholders.

3. The second paragraph of this section states that, if an offering of securities involves any underwriters, dealers or agents, they will be identified in an applicable prospectus supplement. Please also disclose in this section that, if an offering involves the selling noteholders, the selling noteholders will be identified in an applicable prospectus supplement. Please note that the applicable prospectus supplement is to be filed in a post-effective amendment to the registration statement.

Prospectus Summary — Use of Financial Leverage (Page 4)

4. The second paragraph of this section discloses that costs associated with the issuance of preferred stock are borne by common stockholders. Please confirm to us that these expenses will be estimated in the fee table.

Prospectus Summary — Derivatives and Other Strategies (Page 4)

5. The third paragraph in this section states that the Fund may use short sales. Please confirm to us that the fee table will include an estimate of dividends paid on the Fund’s short sales.

Prospectus Summary — Distributions (Page 5)

6. Please state in this section that, as disclosed in the “Stockholder Tax Features” section on page 6 of the prospectus, the Fund expects that a portion of its distributions may constitute a return of capital (“ROC”) distribution, which represents a return of a stockholder’s original investment in the Fund. Please also include a cross-reference to the “Stockholder Tax Features” section.

Fees and Expenses (Page 10)

7. Footnote (6) to the fee table states that the adviser has agreed to waive “for a period of one year ending on December 11, 2014” a portion of its management fee. Please revise this

disclosure to indicate that the fee waiver agreement will be in place for at least one full year from the effective date of the registration statement or, alternatively, remove all references to this fee waiver agreement. If a fee waiver agreement will be in place for at least one year from the effective date of the registration statement, please file a copy of the agreement as an exhibit to the registration statement.

SUPPLEMENTAL COMMENTS REGARDING WEBSITE DISCLOSURES

Return of Capital Distributions

8. Website disclosures should clearly indicate that distributions include a ROC, and should provide an estimate of the amount of the distribution that is a ROC. While the staff understands that the final determination of the characterization of distributions is not made until after the Fund's year end, a good faith estimate of the amount of ROC should be provided in all disclosures regarding distributions. For example, the "Fact Sheet" on the Fund's website should disclose the estimated portion of the "Quarterly Distributions (\$/share)" that is a ROC. Similarly, the "Quarterly Distributions Per Share" chart should disclose the ROC portion of each distribution. Although there is ROC disclosure for the 2012 distributions, a good faith estimate should be provided regarding the 2013 characterization of distributions. See <http://kaynefunds.com/kyn/fact-sheet>.

In addition, press releases concerning distributions should also disclose a good faith estimate of the character of distributions. Statements indicating that a portion of distributions may be a ROC are not sufficient. See http://media.corporateir.net/media_files/IROL/18/183599/2013/130919_kyn_press_release.pdf

GENERAL COMMENTS

9. We note that portions of the filing are incomplete. We may have additional comments on such portions when you complete them in pre-effective amendments, on disclosures made in response to this letter, on information you supply to us, or on exhibits added in any pre-effective amendments.

10. If you intend to omit certain information from the form of prospectus included with the registration statement that is declared effective, in reliance on Rule 430A under the Securities Act of 1933, please identify the omitted information to us, preferably before filing the final pre-effective amendment.

11. Please advise us if you have submitted or expect to submit an exemptive application or no-action request in connection with your registration statement.

12. Responses to this letter should be in the form of a pre-effective amendment filed pursuant to Rule 472 under the Securities Act. Where no change will be made in the filing in response to a comment, please indicate this fact in a letter to us and briefly state the basis for your position.

13. We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing reviewed by the staff to be certain that they have provided all information investors require to make an informed decision. Since the Fund and its management are in possession of all facts relating to the Fund's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

* * * * *

Notwithstanding our comments, in the event the Fund requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Fund from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the Fund may not assert this action as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Investment Management in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a confirmation of the fact that those requesting acceleration are aware of their respective responsibilities. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

Should you have any questions prior to filing an amendment, please feel free to contact me at (202) 551-6959.

Sincerely,

Edward P. Bartz
Senior Counsel