

Kayne Anderson MLP Investment CO  
Form POS EX  
February 29, 2012

As filed with the Securities and Exchange Commission on February 29, 2012

1933 Act File No. 333-177550  
1940 Act File No. 811-21593

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

Form N-2

þ REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933  
o PRE-EFFECTIVE AMENDMENT NO.  
þ POST-EFFECTIVE AMENDMENT NO. 1

and/or

þ REGISTRATION STATEMENT UNDER THE INVESTMENT COMPANY ACT OF 1940  
þ AMENDMENT NO. 42

**Kayne Anderson MLP Investment Company**  
*(Exact Name of Registrant as Specified in Charter)*

**717 Texas Avenue, Suite 3100**  
**Houston, Texas 77002**  
*(Address of Principal Executive Offices)*

**Registrant's Telephone Number, including Area Code: (713) 493-2020**

**David J. Shladovsky, Esq.**  
**KA Fund Advisors, LLC**  
**1800 Avenue of the Stars, Second Floor**  
**Los Angeles, California 90067**  
*(Name and Address of Agent for Service)*

*Copies of Communications to:*

**David A. Hearth, Esq.**  
**Paul Hastings LLP**  
**55 Second Street, 24th Floor**  
**San Francisco, California 94105-3441**

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

**Approximate Date of Proposed Public Offering:** From time to time after the effective date of the Registration Statement.

If any of the securities being registered on this form will be offered on a delayed or continuous basis in reliance on Rule 415 under the Securities Act of 1933, other than securities offered in connection with a dividend reinvestment plan, check the following box.

This post-effective amendment will become effective immediately pursuant to Rule 462(d).

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**EXPLANATORY NOTE**

This Post-Effective Amendment No. 1 to the Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) of Kayne Anderson MLP Investment Company, as amended (the Registration Statement ) is being filed pursuant to Rule 462(d) under the Securities Act of 1933, as amended (the Securities Act ), solely for the purpose of filing exhibits to the Registration Statement. Accordingly, this Post-Effective Amendment No. 1 consists only of a facing page, this explanatory note and Part C of the Registration Statement on Form N-2 setting forth the exhibits to the Registration Statement. This Post-Effective Amendment No. 1 does not modify any other part of the Registration Statement. Pursuant to Rule 462(d) under the Securities Act, this Post-Effective Amendment No. 1 shall become effective immediately upon filing with the Securities and Exchange Commission. The contents of the Registration Statement are hereby incorporated by reference.

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**KAYNE ANDERSON MLP INVESTMENT COMPANY**

**PART C Other Information**

**Item 25. Financial Statements and Exhibits**

1. Financial Statements:

Part A Our financial highlights, the accompanying notes thereto, and the report of PricewaterhouseCoopers LLP thereon, contained in our Annual Report to Stockholders on Form N-CSR for the fiscal year ended November 30, 2011, filed by us with the SEC on February 7, 2012, are hereby incorporated by reference into Part A of this Registration Statement.

Part B Our financial statements and financial highlights, the accompanying notes thereto, and the report of PricewaterhouseCoopers LLP thereon, contained in our Annual Report to Stockholders on Form N-CSR for the fiscal year ended November 30, 2011, filed by us with the SEC on February 7, 2012, are hereby incorporated by reference into Part B of this Registration Statement.

2. Exhibits:

(a)(1) Registrant's Articles of Amendment and Restatement is incorporated herein by reference to Exhibit 99.1 of Pre-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-116479 and 811-21593) as filed with the Securities and Exchange Commission on September 1, 2004.

(a)(2) Registrant's Articles Supplementary for Series A Mandatory Redeemable Preferred Stock is incorporated herein by reference to Exhibit (a)(2) of Pre-Effective Amendment No. 2 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on July 6, 2010.

(a)(3) Registrant's Articles Supplementary for Series B Mandatory Redeemable Preferred Stock and Series C Mandatory Redeemable Preferred Stock is incorporated herein by reference to Exhibit (a)(3) of Post-Effective Amendment No. 2 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on February 14, 2011.

(a)(4) Registrant's Articles Supplementary for Series D Mandatory Redeemable Preferred Stock is incorporated herein by reference to Exhibit (a)(4) of Post-Effective Amendment No. 5 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on May 5, 2011.

(a)(5) Articles Supplementary for Newly Issued Preferred Stock to be filed by amendment.

(b) Registrant's Amended and Restated Bylaws of Registrant is incorporated herein by reference to Exhibit 99.1 of Pre-Effective Amendment No. 4 to the Registrant's Registration on Form N-2 (File Nos. 333-116479 and 811-21593) as filed with the Securities and Exchange Commission on September 16, 2004.

(c) Voting Trust Agreement none.

(d)(1) Form of Common Share Certificate is incorporated herein by reference to Exhibit (d)(1) of 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.

- (d)(2) Form of Fitch Rating Guidelines is incorporated herein by reference to Exhibit (d)(2) of Registrant's Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Securities and Exchange Commission on October 26, 2011.

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- (d)(3) Form of Series A Mandatory Redeemable Preferred Stock Certificate is incorporated herein by reference to Exhibit (d)(2) of Pre-Effective Amendment No. 1 to Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on May 24, 2010.
- (d)(4) Form of Series B Mandatory Redeemable Preferred Stock Certificate is incorporated herein by reference to Exhibit (d)(4) of Post-Effective Amendment No. 2 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on February 14, 2011.
- (d)(5) Form of Series C Mandatory Redeemable Preferred Stock Certificate is incorporated herein by reference to Exhibit (d)(5) of Post-Effective Amendment No. 2 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on February 14, 2011.
- (d)(6) Form of Series D Mandatory Redeemable Preferred Stock Certificate is incorporated herein by reference to Exhibit (d)(6) of Post-Effective Amendment No. 5 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on May 5, 2011.
- (d)(7) Form of Newly-Issued Preferred Stock Certificate to be filed by amendment.
- (e) Registrant's Amended Dividend Reinvestment Plan is incorporated herein by reference to Exhibit (e) of Post-Effective Amendment No. 1 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-151975 and 811-21593) as filed with the Securities and Exchange Commission on April 17, 2009.
- (f) Long-Term Debt Instruments none.
- (g)(1) Amended and Restated Investment Management Agreement between Registrant and Kayne Anderson Capital Advisors, L.P. is incorporated herein by reference to Exhibit (g)(1) of Pre-Effective Amendment No. 1 to 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 March 23, 2007.
- (g)(2) Assignment of Investment Management Agreement from Kayne Anderson Capital Advisors, L.P. to KA Fund Advisors, LLC is incorporated herein by reference to Exhibit (g)(2) of Pre-Effective Amendment No. 1 to 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 March 23, 2007.
- (h)(1) Underwriting Agreement by and among the Registrant, KA Fund Advisors, LLC and Kayne Anderson Capital Advisors, L.P. and Citigroup Global Markets Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated, Morgan Stanley & Co. LLC and UBS Securities LLC as Representatives of the several underwriters dated February 29, 2012 filed herewith.
- (h)(2) Form of Underwriting/Distribution Agreement for Newly-Issued Preferred Stock to be filed by amendment.
- (i) Bonus, Profit Sharing, Pension Plans none.

- (j)(1) Form of Custody Agreement is incorporated herein by reference to Exhibit 99.6 of Pre-Effective Amendment No. 4 to the Registrant's Registration on Form N-2 (File Nos. 333-116479 and 811-21593) as filed with the Securities and Exchange Commission on September 16, 2004.
- (j)(2) Assignment of Custody Agreement from Custodial Trust Company to JPMorgan Chase Bank, N.A is incorporated herein by reference to Exhibit (j)(2) of Pre-Effective Amendment No. 1 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on May 24, 2010.
- (k) Other Material Contracts:
  - (k)(1) Administration Agreement between the Registrant and Ultimus Fund Solutions, LLC dated February 28, 2009 is incorporated herein by reference to Exhibit (k)(1) of Post-Effective Amendment No. 1 to the Registration Statement on Form N-2 (File Nos. 333-151975 and 811-21593) as filed with the Securities and Exchange Commission on April 17, 2009.
  - (k)(2) First Amendment to Administration Agreement between the Registrant and Ultimus Fund Solutions, LLC dated December 12, 2011 filed herewith.
  - (k)(3) Form of Transfer Agency Agreement is incorporated herein by reference to Exhibit 99.3 of Pre-Effective Amendment No. 5 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-116479 and 811-21593) as filed with the Securities and Exchange Commission on September 27, 2004.
  - (k)(4) Form of Fund Accounting Agreement is incorporated herein by reference to Exhibit 99.4 of Pre-Effective Amendment No. 5 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-116479 and 811-21593) as filed with the Securities and Exchange Commission on September 27, 2004.
  - (k)(5) Credit Agreement among the Registrant, JPMorgan Chase Bank, N.A. and the several lenders from time to time parties thereto dated June 26, 2009 is incorporated herein by reference to Exhibit (k)(4) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.
  - (k)(6) Accession Agreement among Citibank, N.A., the Registrant, JP Morgan Chase Bank, N.A. and the lenders parties thereto dated July 1, 2009 is incorporated herein by reference to Exhibit (k)(5) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.
  - (k)(7) Termination, Replacement and Restatement Agreement among the Registrant, JP Morgan Chase Bank, N.A., J. P. Morgan Securities Inc., and the several banks from time to time parties thereto dated June 11, 2010 is incorporated herein by reference to Exhibit (k)(6) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.
  - (k)(8) First Amendment Agreement to Credit Agreement among the Registrant, JP Morgan Chase Bank, N.A., J. P. Morgan Securities Inc., and the several banks from time to time parties thereto dated October 25, 2010 is incorporated herein by reference to Exhibit (k)(7) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.

- (k)(9) Second Amendment Agreement to Credit Agreement among the Registrant, JP Morgan Chase Bank, N.A., J. P. Morgan Securities Inc., and the several banks from time to time parties thereto dated February 25, 2011 is incorporated herein by reference to Exhibit (k)(8) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.
- (k)(10) Third Amendment Agreement to Credit Agreement among the Registrant, JP Morgan Chase Bank, N.A., J. P. Morgan Securities Inc., and the several banks from time to time parties thereto dated October 17, 2011 is incorporated herein by reference to Exhibit (k)(9) of Registrant's Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Securities and Exchange Commission on October 26, 2011.
- (k)(11) Note Purchase Agreement for Series G Notes, Series H Notes, Series I Notes, Series J Notes, Series K Notes and Series L Notes dated June 19, 2008 is incorporated herein by reference to Exhibit (k)(5) of Pre-Effective Amendment No. 1 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-151975 and 811-21593) as filed with the Securities and Exchange Commission on August 13, 2008.

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- (k)(12) Note Purchase Agreement for Series M Notes and Series N Notes dated November 4, 2009 is incorporated herein by reference to Exhibit (k)(10) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.
- (k)(13) Note Purchase Agreement for Series O Notes and Series P Notes dated May 7, 2010 is incorporated herein by reference to Exhibit (k)(11) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.
- (k)(14) Note Purchase Agreement for Series Q Notes, Series R Notes, Series S Notes and Series T Notes dated November 9, 2010 is incorporated herein by reference to Exhibit (k)(12) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.
- (k)(15) Note Purchase Agreement for Series U Notes, Series V Notes and Series W Notes dated May 26, 2011 is incorporated herein by reference to Exhibit (k)(14) of Pre-Effective Amendment No. 1 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Securities and Exchange Commission on December 9, 2011.
- (k)(16) Certificate of Appointment of American Stock Transfer & Trust Company as Transfer Agent and registrar for Series D Mandatory Redeemable Preferred Stock is incorporated herein by reference to Exhibit (k)(13) of Post-Effective Amendment No. 5 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on May 5, 2011.
- (l) Opinions and Consents of Counsel:
  - (l)(1) Opinion and Consent of Venable LLP with Respect to Issuances of Common Stock and Preferred Stock dated December 9, 2011 is incorporated herein by reference to Exhibit (l)(1) of Pre-Effective Amendment No. 1 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Securities and Exchange Commission on December 9, 2011.
  - (l)(2) Opinion and Consent of Venable LLP with Respect to Specific Issuance of Common Stock filed herewith.
  - (l)(3) Opinion and Consent of Venable LLP with Respect to Specific Issuances of Preferred Stock to be filed by amendment.
- (m) Non-Resident Officers/Directors none.
- (n) Consent of PricewaterhouseCoopers LLP, the Registrant's Independent Auditors is incorporated by reference to Exhibit (n) of Pre-Effective Amendment No. 2 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Securities and Exchange Commission on February 9, 2012.
- (o) Omitted Financial Statements none.
- (p) Subscription Agreement none.

- (q) Model Retirement Plans none.
- (r) Codes of Ethics:
  - (r)(1) Code of Ethics of Registrant is incorporated herein by reference to Exhibit 99.8 of Pre-Effective Amendment No. 4 to the Registrant's Registration on Form N-2 (File Nos. 333-116479 and 811-21593) as filed with the Securities and Exchange Commission on September 16, 2004.
  - (r)(2) Code of Conduct of KA Fund Advisors, LLC is incorporated herein by reference to Exhibit (r)(2) of Post-Effective Amendment No. 1 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on August 10, 2010.
- (s) Powers of Attorney are incorporated herein by reference to Exhibit (s) of Registrant's Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Securities and Exchange Commission on October 26, 2011.

**Item 26. Marketing Arrangements**

Reference is made to the Underwriting Agreement for the Registrant's common stock filed as Exhibit (h)(1) herewith and other forms of underwriting agreements for the Registrant's common and preferred stock to be filed as exhibits in future amendments to the Registrant's Registration Statement, the section entitled Plan of Distribution contained in Registrant's Base Prospectus, filed in Part A of Registrant's Registration Statement and in sections of prospectus supplements entitled Underwriting or similar such captions, filed with the Securities and Exchange Commission from time to time.

**Item 27. Other Expenses and Distribution**

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The following table sets forth the estimated expenses to be incurred in connection with the offering described in this Registration Statement:

|   |                  |
|---|------------------|
| Securities and Exchange Commission fees | \$ 57,300        |
| Printing and engraving expenses         | \$ 350,000       |
| FINRA fee                               | \$ 50,500        |
| NYSE listing fees                       | \$ 95,000        |
| Accounting fees and expenses            | \$ 125,000       |
| Legal fees and expenses                 | \$ 400,000       |
| Miscellaneous fees and expenses         | \$ 75,000        |
| <br>Total                               | <br>\$ 1,152,800 |

**Item 28. Persons Controlled by or Under Common Control**

None.

**Item 29. Number of Holders of Securities as of January 31, 2012**

| Title of Class   | Number of Record Holders |
|--|--------------------------|
| Common Stock, \$0.001 par value per share                  | 45                       |
| Preferred Stock (Liquidation Preference \$25.00 per share) | 12                       |
| Long-term Debt   | 29                       |

**Item 30. Indemnification**

Maryland law permits a Maryland corporation to include in its charter a provision limiting the liability of its directors and officers to the corporation and its stockholders for money damages except for liability resulting from (a) actual receipt of an improper benefit or profit in money, property or services or (b) active and deliberate dishonesty that is established by a final judgment as being material to the cause of action. The Registrant's charter contains such a provision which eliminates our directors' and officers' liability to the maximum extent permitted by Maryland law, subject to the requirements of the 1940 Act.

The Registrant's charter authorizes the Registrant, to the maximum extent permitted by Maryland law, to obligate itself to indemnify any present or former director or officer or any individual who, while a director or officer of the Registrant and at the request of the Registrant, serves or has served another corporation, real estate investment trust, partnership, joint venture, trust, employee benefit plan or other enterprise as a director, officer, partner or trustee, from and against any claim or liability to which that individual may become subject or which that individual may incur by reason of his or her service in any such capacity and to pay or reimburse his or her reasonable expenses in advance of final disposition of a proceeding. The Registrant's bylaws obligate the Registrant, to the maximum extent permitted by Maryland law, to indemnify any present or former director or officer or any individual who, while a director or officer of the Registrant and at the request of the Registrant, serves or has served another corporation, real estate investment trust, partnership, joint venture, trust, employee benefit plan or other enterprise as a director, officer, partner or trustee and who is made, or threatened to be made, a party to the proceeding by reason of his or her service in that capacity from and against any claim or liability to which that individual may become subject or which that individual may incur by reason of his or her service in any of the foregoing capacities and to pay or reimburse his or her reasonable expenses in advance of final disposition of a proceeding. The charter and bylaws also permit the Registrant to indemnify and advance expenses to any individual who served a predecessor of the Registrant in any of the capacities described above and any employee or agent of the Registrant or a predecessor of the Registrant.

Maryland law requires a corporation (unless its charter provides otherwise, which the Registrant's charter does not) to indemnify a director or officer who has been successful, on the merits or otherwise, in the defense of any proceeding to which he or she is made, or threatened to be made, a party by reason of his or her service in that capacity. Maryland law permits a corporation to indemnify its present and former directors and officers, among others,

against judgments, penalties, fines, settlements and reasonable expenses actually incurred by them in connection with any proceeding to which they may be made, or threatened to be made, a party by reason of their service in those or other capacities unless it is established that (a) the act or omission of the director or officer was material to the matter giving rise to the proceeding and (1) was committed in bad faith or (2) was the result of active and deliberate dishonesty, (b) the director or officer actually received an improper personal benefit in money, property or services or (c) in the case of any

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criminal proceeding, the director or officer had reasonable cause to believe the act or omission was unlawful. However, under Maryland law, a Maryland corporation may not indemnify for an adverse judgment in a suit by or in the right of the corporation or for a judgment of liability on the basis that personal benefit was improperly received, unless in either case a court orders indemnification and then only for expenses. In addition, Maryland law permits a corporation to advance reasonable expenses to a director or officer upon the corporation's receipt of (a) a written affirmation by the director or officer of his or her good faith belief that he or she has met the standard of conduct necessary for indemnification by the corporation and (b) a written undertaking by him or her or on his or her behalf to repay the amount paid or reimbursed by the corporation if it is ultimately determined that the standard of conduct was not met.

Insofar as indemnification for liability arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

**Item 31. Business and Other Connections of Investment Adviser**

The information in the SAI under the caption "Management - Directors and Officers" is hereby incorporated by reference.

Part B and Schedules A and D of Form ADV of the Adviser (SEC File No. 801-67089), incorporated herein by reference, sets forth the officers of the Adviser and information as to any business, profession, vocation or employment of a substantial nature engaged in by those officers during the past two years.

**Item 32. Location of Accounts and Records**

The accounts, books or other documents required to be maintained by Section 31(a) of the Investment Company Act of 1940, as amended, and the rules promulgated thereunder, are kept by the Registrant or its custodian, transfer agent, administrator and fund accountant.

**Item 33. Management Services**

Not applicable.

**Item 34. Undertakings**

1. Registrant undertakes to suspend the offering of its common stock until it amends the prospectus filed herewith if (1) subsequent to the effective date of its registration statement, the net asset value declines more than 10 percent from its net asset value as of the effective date of the registration statement, or (2) the net asset value increases to an amount greater than its net proceeds as stated in the prospectus.

2. Not Applicable.

3. Not Applicable.

4. Registrant undertakes:

(a) to file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(1) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended (the "Securities Act");

(2) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement; and

(3) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

(b) that, for the purpose of determining liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of those securities at that time shall be deemed to be the initial bona fide offering thereof; and

(c) to remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering;

(d) that, for the purpose of determining liability under the Securities Act to any purchaser, if the Registrant is subject to Rule 430C: each prospectus filed pursuant to Rule 497(b), (c), (d) or (e) under the Securities Act as part of this registration statement relating to an offering, other than prospectuses filed in reliance on Rule 430A under the Securities Act, shall be deemed to be part of and included in this registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in this registration statement or prospectus that is part of this registration statement or made in a document incorporated or deemed incorporated by reference into this registration or prospectus that is part of this registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in this registration statement or prospectus that was part of this registration statement or made in any such document immediately prior to such date of first use.

(e) that for the purpose of determining liability of the Registrant under the Securities Act to any purchaser in the initial distribution of securities:

The undersigned Registrant undertakes that in a primary offering of securities of the undersigned Registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to the purchaser:

(1) any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 497 under the Securities Act;

(2) the portion of any advertisement pursuant to Rule 482 under the Securities Act relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned Registrant; and

(3) any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.

5. Registrant undertakes that:

(a) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant under Rule 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective; and

(b) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of the securities at that time shall be deemed to be the initial bona fide offering thereof.

6. The Registrant undertakes to send by first class mail or other means designed to ensure equally prompt delivery, within two business days of receipt of a written or oral request, any Statement of Additional Information.

7. Upon each issuance of securities pursuant to this Registration Statement, the Registrant undertakes to file a form of prospectus and/or form of prospectus supplement pursuant to Rule 497 and a post-effective amendment to the extent required by the Securities

Act and the rules and regulations thereunder, including, but not limited to a post-effective amendment pursuant to Rule 462(c) or Rule 462(d) under the Securities Act.

8. The Registrant undertakes to file a post-effective amendment upon each issuance of securities pursuant to this registration statement in which such securities are sold other than for cash, including in exchange transactions for non-control securities or for a combination of cash and non-control securities.

9. The Registrant undertakes to file a post-effective amendment with respect to any offering of common stock and preferred stock pursuant to this Registration Statement which is structured as a linked or unit offering.

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**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, as amended, and the Investment Company Act of 1940, as amended, the Registrant has duly caused this Post-Effective Amendment No. 1 to this Registration Statement on Form N-2 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, and the State of Texas, on the 29th day of February, 2012.

KAYNE ANDERSON MLP INVESTMENT  
COMPANY

By: /s/ Kevin S. McCarthy  
Kevin S. McCarthy  
Title: Chairman and Chief Executive  
Officer

Pursuant to the requirements of the 1933 Act, this Post-Effective Amendment No. 1 to this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated:

| <b>Signature</b>                                   | <b>Title</b>   | <b>Date</b>       |
|--|--|-------------------|
| /s/ KEVIN S. McCARTHY<br><br>Kevin S. McCarthy     | Director, Chief Executive Officer and<br>President (Principal Executive Officer)         | February 29, 2012 |
| /s/ TERRY A. HART<br><br>Terry A. Hart             | Chief Financial Officer and<br>Treasurer (Principal Financial and<br>Accounting Officer) | February 29, 2012 |
| /s/ ANNE K. COSTIN*<br><br>Anne K. Costin          | Director   | February 29, 2012 |
| /s/ STEVEN C. GOOD*<br><br>Steven C. Good          | Director   | February 29, 2012 |
| /s/ GERALD I. ISENBERG*<br><br>Gerald I. Isenberg  | Director   | February 29, 2012 |
| /s/ WILLIAM H. SHEA*<br><br>William H. Shea        | Director   | February 29, 2012 |
| *By:<br>/s/ DAVID A. HEARTH<br><br>David A. Hearth | Attorney-in-Fact   | February 29, 2012 |



The original powers of attorney authorizing David A. Hearth to execute this Registration Statement and any amendments thereto for the directors of the Registrant on whose behalf this Registration Statement is filed have been executed and were previously filed as Exhibit (s) to this Registration Statement.

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## INDEX TO EXHIBITS

### Exhibit Exhibit Name

- (a)(1) Registrant's Articles of Amendment and Restatement is incorporated herein by reference to Exhibit 99.1 of Pre-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-116479 and 811-21593) as filed with the Securities and Exchange Commission on September 1, 2004.
- (a)(2) Registrant's Articles Supplementary for Series A Mandatory Redeemable Preferred Stock is incorporated herein by reference to Exhibit (a)(2) of Pre-Effective Amendment No. 2 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on July 6, 2010.
- (a)(3) Registrant's Articles Supplementary for Series B Mandatory Redeemable Preferred Stock and Series C Mandatory Redeemable Preferred Stock is incorporated herein by reference to Exhibit (a)(3) of Post-Effective Amendment No. 2 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on February 14, 2011.
- (a)(4) Registrant's Articles Supplementary for Series D Mandatory Redeemable Preferred Stock is incorporated herein by reference to Exhibit (a)(4) of Post-Effective Amendment No. 5 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on May 5, 2011.
- (a)(5) Articles Supplementary for Newly Issued Preferred Stock to be filed by amendment.
- (b) Registrant's Amended and Restated Bylaws of Registrant is incorporated herein by reference to Exhibit 99.1 of Pre-Effective Amendment No. 4 to the Registrant's Registration on Form N-2 (File Nos. 333-116479 and 811-21593) as filed with the Securities and Exchange Commission on September 16, 2004.
- (c) Voting Trust Agreement none.
- (d)(1) Form of Common Share Certificate is incorporated herein by reference to Exhibit (d)(1) of 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.
- (d)(2) Form of Fitch Rating Guidelines is incorporated herein by reference to Exhibit (d)(2) of Registrant's Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Securities and Exchange Commission on October 26, 2011.
- (d)(3) Form of Series A Mandatory Redeemable Preferred Stock Certificate is incorporated herein by reference to Exhibit (d)(2) of Pre-Effective Amendment No. 1 to Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on May 24, 2010.
- (d)(4) Form of Series B Mandatory Redeemable Preferred Stock Certificate is incorporated herein by reference to Exhibit (d)(4) of Post-Effective Amendment No. 2 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on February 14, 2011.
- (d)(5)

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Form of Series C Mandatory Redeemable Preferred Stock Certificate is incorporated herein by reference to Exhibit (d)(5) of Post-Effective Amendment No. 2 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on February 14, 2011.

- (d)(6) Form of Series D Mandatory Redeemable Preferred Stock Certificate is incorporated herein by reference to Exhibit (d)(6) of Post-Effective Amendment No. 5 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on May 5, 2011.
- (d)(7) Form of Newly-Issued Preferred Stock Certificate to be filed by amendment.
- (e) Registrant's Amended Dividend Reinvestment Plan is incorporated herein by reference to Exhibit (e) of Post-Effective Amendment No. 1 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-151975 and 811-21593) as filed with the Securities and Exchange Commission on April 17, 2009.
- (f) Long-Term Debt Instruments none.

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**Exhibit Exhibit Name**

- (g)(1) Amended and Restated Investment Management Agreement between Registrant and Kayne Anderson Capital Advisors, L.P. is incorporated herein by reference to Exhibit (g)(1) of Pre-Effective Amendment No. 1 to 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 March 23, 2007.
- (g)(2) Assignment of Investment Management Agreement from Kayne Anderson Capital Advisors, L.P. to KA Fund Advisors, LLC is incorporated herein by reference to Exhibit (g)(2) of Pre-Effective Amendment No. 1 to 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 March 23, 2007.
- (h)(1) Underwriting Agreement by and among the Registrant, KA Fund Advisors, LLC and Kayne Anderson Capital Advisors, L.P. and Citigroup Global Markets Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated, Morgan Stanley & Co. LLC and UBS Securities LLC as Representatives of the several underwriters dated February 29, 2012 filed herewith.
- (h)(2) Form of Underwriting/Distribution Agreement for Newly-Issued Preferred Stock to be filed by amendment.
- (i) Bonus, Profit Sharing, Pension Plans none.
- (j)(1) Form of Custody Agreement is incorporated herein by reference to Exhibit 99.6 of Pre-Effective Amendment No. 4 to the Registrant's Registration on Form N-2 (File Nos. 333-116479 and 811-21593) as filed with the Securities and Exchange Commission on September 16, 2004.
- (j)(2) Assignment of Custody Agreement from Custodial Trust Company to JPMorgan Chase Bank, N.A is incorporated herein by reference to Exhibit (j)(2) of Pre-Effective Amendment No. 1 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on May 24, 2010.
- (k) Other Material Contracts:
  - (k)(1) Administration Agreement between the Registrant and Ultimus Fund Solutions, LLC dated February 28, 2009 is incorporated herein by reference to Exhibit (k)(1) of Post-Effective Amendment No. 1 to the Registration Statement on Form N-2 (File Nos. 333-151975 and 811-21593) as filed with the Securities and Exchange Commission on April 17, 2009.
  - (k)(2) First Amendment to Administration Agreement between the Registrant and Ultimus Fund Solutions, LLC dated December 12, 2011 filed herewith.
  - (k)(3) Form of Transfer Agency Agreement is incorporated herein by reference to Exhibit 99.3 of Pre-Effective Amendment No. 5 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-116479 and 811-21593) as filed with the Securities and Exchange Commission on September 27, 2004.
  - (k)(4) Form of Fund Accounting Agreement is incorporated herein by reference to Exhibit 99.4 of Pre-Effective Amendment No. 5 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-116479 and 811-21593) as filed with the Securities and Exchange Commission on September 27, 2004.

(k)(5) Credit Agreement among the Registrant, JPMorgan Chase Bank, N.A. and the several lenders from time to time parties thereto dated June 26, 2009 is incorporated herein by reference to Exhibit (k)(4) of Post-Effective Amendment

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**Exhibit Exhibit Name**

No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.

- (k)(6) Accession Agreement among Citibank, N.A., the Registrant, JP Morgan Chase Bank, N.A. and the lenders parties thereto dated July 1, 2009 is incorporated herein by reference to Exhibit (k)(5) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.
- (k)(7) Termination, Replacement and Restatement Agreement among the Registrant, JP Morgan Chase Bank, N.A., J. P. Morgan Securities Inc., and the several banks from time to time parties thereto dated June 11, 2010 is incorporated herein by reference to Exhibit (k)(6) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.
- (k)(8) First Amendment Agreement to Credit Agreement among the Registrant, JP Morgan Chase Bank, N.A., J. P. Morgan Securities Inc., and the several banks from time to time parties thereto dated October 25, 2010 is incorporated herein by reference to Exhibit (k)(7) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.
- (k)(9) Second Amendment Agreement to Credit Agreement among the Registrant, JP Morgan Chase Bank, N.A., J. P. Morgan Securities Inc., and the several banks from time to time parties thereto dated February 25, 2011 is incorporated herein by reference to Exhibit (k)(8) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.
- (k)(10) Third Amendment Agreement to Credit Agreement among the Registrant, JP Morgan Chase Bank, N.A., J. P. Morgan Securities Inc., and the several banks from time to time parties thereto dated October 17, 2011 is incorporated herein by reference to Exhibit (k)(9) of Registrant's Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Securities and Exchange Commission on October 26, 2011.
- (k)(11) Note Purchase Agreement for Series G Notes, Series H Notes, Series I Notes, Series J Notes, Series K Notes and Series L Notes dated June 19, 2008 is incorporated herein by reference to Exhibit (k)(5) of Pre-Effective Amendment No. 1 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-151975 and 811-21593) as filed with the Securities and Exchange Commission on August 13, 2008.
- (k)(12) Note Purchase Agreement for Series M Notes and Series N Notes dated November 4, 2009 is incorporated herein by reference to Exhibit (k)(10) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.
- (k)(13) Note Purchase Agreement for Series O Notes and Series P Notes dated May 7, 2010 is incorporated herein by reference to Exhibit (k)(11) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.

- (k)(14) Note Purchase Agreement for Series Q Notes, Series R Notes, Series S Notes and Series T Notes dated November 9, 2010 is incorporated herein by reference to Exhibit (k)(12) of Post-Effective Amendment No. 3 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on April 1, 2011.
- (k)(15) Note Purchase Agreement for Series U Notes, Series V Notes and Series W Notes dated May 26, 2011 is incorporated herein by reference to Exhibit (k)(14) of Pre-Effective Amendment No. 1 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Securities and Exchange Commission on December 9, 2011.
- (k)(16) Certificate of Appointment of American Stock Transfer & Trust Company as Transfer Agent and registrar for Series D Mandatory Redeemable Preferred Stock is incorporated herein by reference to Exhibit (k)(13) of Post-Effective Amendment No. 5 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on May 5, 2011.

**Exhibit Exhibit Name**

- (l) Opinions and Consents of Counsel:
  - (l)(1) Opinion and Consent of Venable LLP with Respect to Issuances of Common Stock and Preferred Stock dated December 9, 2011 is incorporated herein by reference to Exhibit (l)(1) of Pre-Effective Amendment No. 1 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Securities and Exchange Commission on December 9, 2011.
  - (l)(2) Opinion and Consent of Venable LLP with Respect to Specific Issuance of Common Stock filed herewith.
  - (l)(3) Opinion and Consent of Venable LLP with Respect to Specific Issuances of Preferred Stock to be filed by amendment.
- (m) Non-Resident Officers/Directors none.
- (n) Consent of PricewaterhouseCooper LLP, the Registrant's Independent Auditors is incorporated by reference to Exhibit (n) of Pre-Effective Amendment No. 2 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Securities and Exchange Commission on February 9, 2012.
- (o) Omitted Financial Statements none.
- (p) Subscription Agreement none.
- (q) Model Retirement Plans none.
- (r) Codes of Ethics:
  - (r)(1) Code of Ethics of Registrant is incorporated herein by reference to Exhibit 99.8 of Pre-Effective Amendment No. 4 to the Registrant's Registration on Form N-2 (File Nos. 333-116479 and 811-21593) as filed with the Securities and Exchange Commission on September 16, 2004.
  - (r)(2) Code of Conduct of KA Fund Advisors, LLC is incorporated herein by reference to Exhibit (r)(2) of Post-Effective Amendment No. 1 to the Registrant's Registration Statement on Form N-2 (File Nos. 333-165775 and 811-21593) as filed with the Securities and Exchange Commission on August 10, 2010.
- (s) Powers of Attorney are incorporated herein by reference to Exhibit (s) of Registrant's Registration Statement on Form N-2 (File Nos. 333-177550 and 811-21593) as filed with the Securities and Exchange Commission on October 26, 2011.