Kayne Anderson MLP Investment CO
Form 497
February 28, 2012

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SUBJECT TO COMPLETION FEBRUARY 28, 2012

Filed pursuant to Rule 497(c)
under the Securities Act of 1933,
as amended, File No. 333-177550

PRELIMINARY PROSPECTUS SUPPLEMENT
(To Prospectus dated February 16, 2012)

6,700,000 Shares

Common Stock
$ per share

Kayne Anderson MLP Investment Company (the Company, we, us or our) is a non-diversified, closed-end management investment company. Our investment objective is to obtain a high after-tax total return by investing at least 85% of our total assets in energy-related partnerships and their affiliates (collectively, master limited partnerships or MLPs), and in other companies that, as their principal business, operate assets used in the gathering, transporting, processing, storing, refining, distributing, mining or marketing of natural gas, natural gas liquids, crude oil, refined petroleum products or coal (collectively with MLPs, Midstream Energy Companies).

We are offering 6,700,000 shares of our common stock in this prospectus supplement. This prospectus supplement, together with the accompanying prospectus dated February 16, 2012, sets forth the information that you should know before investing.

Our shares of common stock are listed on the New York Stock Exchange under the symbol KYN. The last reported sale price of our common stock on February 27, 2012 was $32.89 per share. The net asset value per share of our common stock at the close of business on February 27, 2012 was $30.26.

Investing in our common stock involves risk. See Risk Factors beginning on page 17 of the accompanying prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total(1)
Public offering price	$	$
Underwriting discounts and commissions	$	$
Proceeds, before expenses, to us	$	$

(1) We have granted the underwriters an option exercisable for a period of 45 days from the date of this prospectus supplement to purchase up to 1,005,000 additional shares of common stock at the public offering price, less the underwriting discount, to cover over-allotments, if any. If the underwriters exercise the option in full, the total underwriting discounts and commissions will be $, and the total proceeds, before expenses, to us will be $.

The underwriters are offering the shares of common stock as described in Underwriting. Delivery of the shares of common stock will be made on or about March , 2012.

Joint Book-Running Managers

Citigroup

BofA Merrill Lynch

Morgan Stanley

UBS Investment Bank

Wells Fargo Securities

Co-Managers

Baird **RBC Capital Markets** **Stifel Nicolaus Weisel**

February , 2012

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You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. This prospectus supplement and the accompanying prospectus set forth certain information about us that a prospective investor should carefully consider before making an investment in our securities. This prospectus supplement, which describes the specific terms of this offering, also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference in the accompanying prospectus. The accompanying prospectus gives more general information, some of which may not apply to this offering. If the description of this offering varies between this prospectus supplement and the accompanying prospectus, you should rely on the information contained in this prospectus supplement; provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date and incorporated by reference into the accompanying prospectus or prospectus supplement, the statement in the incorporated document having the later date modifies or supersedes the earlier statement. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted or where the person making the offer or sale is not qualified to do so or to any person to whom it is not permitted to make such offer or sale. The information contained in or incorporated by reference in this prospectus supplement and the accompanying prospectus is accurate only as of the respective dates on their front covers, regardless of the time of delivery of this prospectus supplement, the accompanying prospectus, or the sale of the common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

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Prospectus Supplement

Prospectus

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You should read this prospectus supplement and the accompanying prospectus before deciding whether to invest and retain it for future reference. A statement of additional information, dated February 16, 2012 (SAI), as supplemented from time to time, containing additional information about us, has been filed with the Securities and Exchange Commission (SEC) and is incorporated by reference in its entirety into this prospectus supplement. You may request a free copy of our SAI by calling toll-free at (877) 657-3863, or by writing to us at 717 Texas Avenue, Suite 3100, Houston, Texas 77002. Electronic copies of the accompanying prospectus, our stockholder reports and our SAI are also available on our website (http://www.kaynefunds.com). You may also obtain copies of these documents (and other information regarding us) from the SEC s web site (http://www.sec.gov).

CAUTIONARY NOTICE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the SAI contain forward-looking statements. All statements other than statements of historical facts included in this prospectus that address activities, events or developments that we expect, believe or anticipate will or may occur in the future are forward-looking statements including, in particular, the statements about our plans, objectives, strategies and prospects regarding, among other things, our financial condition, results of operations and business. We have identified some of these forward-looking statements with words like believe, may, could, might, forecast, possible, potential, project, will, sl intend, plan, predict, anticipate, estimate, approximate or continue and other words and terms of similar m the negative of such terms. Such forward-looking statements may be contained in this prospectus supplement as well as in the accompanying prospectus. These forward-looking statements are based on current expectations about future events affecting us and are subject to uncertainties and factors relating to our operations and business environment, all of which are difficult to predict and many of which are beyond our control. Many factors mentioned in our discussion in this prospectus supplement and the accompanying prospectus, including the risks outlined under Risk Factors, will be important in determining future results. In addition, several factors that could materially affect our actual results are the ability of the MLPs and other Midstream Energy Companies in which we invest to achieve their objectives, our ability to source favorable private investments, the timing and amount of distributions and dividends from the MLPs and other Midstream Energy Companies in which we intend to invest, the dependence of our future success on the general economy and its impact on the industries in which we invest and other factors discussed in our periodic filings with the SEC.

Although we believe that the expectations reflected in our forward-looking statements are reasonable, we do not know whether our expectations will prove correct. They can be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties. The factors identified above are believed to be important factors, but not necessarily all of the important factors, that could cause our actual results to differ materially from those expressed in any forward-looking statement. Unpredictable or unknown factors could also have material adverse effects on us. Since our actual results, performance or achievements could differ materially from those expressed in, or implied by, these forward-looking statements, we cannot give any assurance that any of the events anticipated by the forward-looking statements will occur or, if any of them do, what impact they will have on our results of operations and financial condition. All forward-looking statements included in this prospectus supplement, the accompanying prospectus or the SAI are expressly qualified in their entirety by the foregoing cautionary statements. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of such documents. We do not undertake any obligation to update, amend or clarify these forward-looking statements or the risk factors contained therein, whether as a result of new information, future events or otherwise, except as may be required under the federal securities laws. We acknowledge that, notwithstanding the foregoing statements, the Private Securities Litigation Reform Act of 1995 does not apply to investment companies such as us.

PROSPECTUS SUPPLEMENT SUMMARY

This summary does not contain all of the information you should consider before investing in our common stock. You should read carefully the entire prospectus supplement, the accompanying prospectus, including the section entitled Risk Factors and the financial statements and related notes, before making an investment decision.

THE COMPANY

Kayne Anderson MLP Investment Company, a Maryland corporation, is a non-diversified, closed-end management investment company registered under the Investment Company Act of 1940, as amended (the 1940 Act). Our investment objective is to obtain a high after-tax total return by investing at least 85% of our total assets in MLPs and other Midstream Energy Companies. We also must comply with the SEC s rule regarding investment company names, which requires us, under normal market conditions, to invest at least 80% of our total assets in MLPs so long as MLP is in our name. Our shares of common stock are listed on the New York Stock Exchange (NYSE) under the symbol KYN.

We began investment activities in September 2004 following our initial public offering. As of January 31, 2012, we had net assets applicable to our common stock of approximately $2.2 billion and total assets of approximately $3.9 billion.

PORTFOLIO INVESTMENTS

Our investments are principally in equity securities issued by MLPs. Generally, we invest in equity securities of (i) master limited partnerships, including preferred, common and subordinated units and general partner interests, (ii) owners of such interests in master limited partnerships and (iii) other Midstream Energy Companies. We may also invest in debt securities of MLPs and other Midstream Energy Companies with varying maturities of up to 30 years.

We are permitted to invest up to 50% of our total assets in unregistered or otherwise restricted securities of MLPs and other Midstream Energy Companies, including securities issued by private companies. We may invest up to 15% of our total assets in any single issuer.

We are permitted to invest up to 20% of our total assets in debt securities of MLPs and other Midstream Energy Companies, including below investment grade debt securities rated, at the time of investment, at least B3 by Moody s Investors Service, Inc., B- by Standard & Poor s Financial Services LLC, a division of the McGraw-Hill Companies, Inc., or Fitch Ratings, Inc., or, if unrated, determined by Kayne Anderson to be of comparable quality. In addition, up to one-quarter of our permitted investments in debt securities (or up to 5% of our total assets) may include unrated debt securities of private companies.

As of January 31, 2012, we held $3.8 billion in equity investments and $35 million in fixed income investments. Our top 10 largest holdings by issuer as of that date were:

	Company	Sector	Amount ($ millions)	Percent of Long-Term Investments
1.	Enterprise Products Partners L.P.	Midstream MLP	$ 351.9	9.1%

2.	Kinder Morgan Management, LLC	MLP Affiliate	292.1	7.5
3.	Plains All American Pipeline, L.P.	Midstream MLP	242.8	6.3
4.	MarkWest Energy Partners, L.P.	Midstream MLP	217.0	5.6
5.	Energy Transfer Equity, L.P.	General Partner MLP	189.1	4.9
6.	Regency Energy Partners L.P.	Midstream MLP	163.0	4.2
7.	Williams Partners L.P.	Midstream MLP	155.5	4.0
8.	Magellan Midstream Partners, L.P.	Midstream MLP	154.9	4.0
9.	EI Paso Pipeline Partners, L.P.	Midstream MLP	142.0	3.7
10.	Buckeye Partners, L.P.	Midstream MLP	128.0	3.3

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INVESTMENT ADVISER

KA Fund Advisors, LLC (KAFA) is our investment adviser and is responsible for implementing and administering our investment strategy. KAFA is a subsidiary of Kayne Anderson Capital Advisors, L.P. (KACALP and together with KAFA, Kayne Anderson). Both KAFA and KACALP are SEC-registered investment advisers. As of December 31, 2011, Kayne Anderson and its affiliates managed approximately $14.2 billion, including approximately $8.7 billion in MLPs and other Midstream Energy Companies. Kayne Anderson has invested in MLPs and other Midstream Energy Companies since 1998. We believe that Kayne Anderson has developed an understanding of the MLP market that enables it to identify and take advantage of public MLP investment opportunities. In addition, Kayne Anderson s senior professionals have developed a strong reputation in the energy sector and have many long-term relationships with industry managers, which we believe gives Kayne Anderson an important advantage in sourcing and structuring private investments.

DISTRIBUTIONS

We have paid distributions to our common stockholders every fiscal quarter since inception and intend to continue to pay quarterly distributions to our common stockholders. Our quarterly distribution per share has increased by 36% since inception and we have increased our distribution in each of the last five quarters. Our most recent quarterly distribution of $0.51 per share, paid in January 2012, was 5.2% higher than the corresponding distribution paid in January 2011. Our next regularly scheduled quarterly distribution will be for our fiscal quarter ending February 29, 2012 and, if approved by our Board of Directors, will be paid to common stockholders on or about April 13, 2012. Payment of future distributions is subject to approval by our Board of Directors, as well as meeting the covenants of our senior debt, meeting the terms of our preferred stock and the asset coverage requirements of the 1940 Act. The distributions we have paid since the beginning of fiscal 2010 are as follows:

Payment Date	**Distribution per Share ($)**	
January 13, 2012	$	0.5100
October 14, 2011		0.5025
July 15, 2011		0.4975
April 15, 2011		0.4900
January 14, 2011		0.4850
October 15, 2010		0.4800
July 9, 2010		0.4800
April 16, 2010		0.4800
January 15, 2010		0.4800

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THE OFFERING

Common stock we are offering	6,700,000 shares
Common stock to be outstanding after this offering	82,068,863 shares(1)
Use of proceeds after expenses	We estimate that our net proceeds from this offering after expenses without exercise of the over-allotment option will be approximately $ million. We intend to use the net proceeds to make investments in portfolio companies in accordance with our investment objective and policies and for general corporate purposes. See Use of Proceeds.
Risk factors	See Risk Factors and other information included in the accompanying prospectus for a discussion of factors you should carefully consider before deciding to invest in shares of our common stock.
NYSE Symbol	KYN

The shareholder transaction expenses can be summarized as follows:

Underwriting discounts and commissions (as a percentage of offering price)	%
Net offering expenses borne by us (as a percentage of offering price)	%
Dividend reinvestment plan fees(2)	None

(1) The number of shares outstanding after the offering assumes the underwriters over-allotment option is not exercised. If the over-allotment option is exercised in full, the number of shares outstanding will increase by 1,005,000 shares.

(2) You will pay brokerage charges if you direct American Stock Transfer & Trust Company, as agent for our common stockholders, to sell your common stock held in a dividend reinvestment account.

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USE OF PROCEEDS

We estimate that the net proceeds from the sale of the 6,700,000 shares of common stock that we are offering will be approximately $ million, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, or approximately $ million if the underwriters exercise the over-allotment option in full.

We intend to use the net proceeds of the offering to make investments in portfolio companies in accordance with our investment objective and policies and for general corporate purposes. We anticipate that we will be able to invest the net proceeds within two to three months.

Pending such investments, we anticipate (i) repaying all or a portion of the indebtedness owed under our existing unsecured revolving credit facility and (ii) investing the remaining net proceeds in short-term securities issued by the U.S. government or its agencies or instrumentalities or in high quality, short-term or long-term debt obligations or money market instruments. A delay in the anticipated use of proceeds could lower returns, reduce our distribution to common stockholders and reduce the amount of cash available to make dividend and interest payments on preferred stock and debt securities, respectively.

At February 27, 2012, we had outstanding borrowings on the revolving credit facility of $31 million and the interest rate was 2.01%. Any borrowings under our revolving credit facility will be used to fund investments in portfolio companies and for general corporate purposes. Amounts repaid under our revolving credit facility will remain available for future borrowings. Affiliates of some of the underwriters are lenders under our revolving credit facility and will receive a pro rata portion of the net proceeds from this offering, if any, used to reduce amounts outstanding under our revolving credit facility. See Underwriting Affiliations Conflicts of Interests.

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CAPITALIZATION

The following table sets forth our capitalization: (i) as of November 30, 2011 and (ii) as of November 30, 2011, as adjusted to give effect to the issuance of the shares of common stock offered hereby. As indicated below, common stockholders will bear the offering costs associated with this offering.

	As of November 30, 2011 Actual	As Adjusted
	(Unaudited) ($ in 000s, except per share data)	
Repurchase Agreements, Cash and Cash Equivalents	$ 53,830	$ (1)
Short-Term Debt:		
Revolving Credit Facility		(1)
Senior Notes Series I(2)	60,000	60,000
Long-Term Debt:		
Senior Notes Series K(2)	125,000	125,000
Senior Notes Series M(2)	60,000	60,000
Senior Notes Series N(2)	50,000	50,000
Senior Notes Series O(2)	65,000	65,000
Senior Notes Series P(2)	45,000	45,000
Senior Notes Series Q(2)	15,000	15,000
Senior Notes Series R(2)	25,000	25,000
Senior Notes Series S(2)	60,000	60,000
Senior Notes Series T(2)	40,000	40,000
Senior Notes Series U(2)	60,000	60,000
Senior Notes Series V(2)	70,000	70,000
Senior Notes Series W(2)	100,000	100,000
Total Debt:	$ 775,000	$ 775,000
Mandatory Redeemable Preferred Stock:		
Series A MRP Shares, $0.001 par value per share, liquidation preference $25.00 per share (4,400,000 shares issued and outstanding, 4,400,000 shares authorized)(2)	$ 110,000	$ 110,000
Series B MRP Shares, $0.001 par value per share, liquidation preference $25.00 per share (320,000 shares issued and outstanding, 320,000 shares authorized)(2)	8,000	8,000
Series C MRP Shares, $0.001 par value per share, liquidation preference $25.00 per share (1,680,000 shares issued and outstanding, 1,680,000 shares authorized)(2)	42,000	42,000
Series D MRP Shares, $0.001 par value per share, liquidation preference $25.00 per share (4,000,000 shares issued and outstanding, 4,000,000 shares authorized)(2)	100,000	100,000
Common Stockholders Equity:		
	$ 75	$ 82

Common stock, $0.001 par value per share, 189,600,000 shares authorized (75,130,209 shares issued and outstanding; 81,830,209 shares issued and outstanding as adjusted)(2)(3)(4)		
Paid-in capital(5)	1,369,132	
Accumulated net investment loss, net of income taxes, less dividends	(335,774)	(335,774)
Accumulated realized gains on investments, options, and interest rate swap contracts, net of income taxes	195,655	195,655
Net unrealized gains on investments and options, net of income taxes	800,515	800,515
Net assets applicable to common stockholders	$ 2,029,603	$

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(1) As described under Use of Proceeds, we intend to use the net proceeds from this offering to make investments in portfolio companies in accordance with our investment objective and policies, to repay indebtedness and for general corporate purposes. Pending such investments, we anticipate either investing the proceeds in short-term securities issued by the U.S. government or its agencies or instrumentalities or in high quality, short-term or long-term debt obligations, money market instruments or cash.

(2) We do not hold any of these outstanding securities for our account.

(3) This does not include shares that may be issued in connection with the underwriters over-allotment option.

(4) On January 13, 2012, we issued 238,654 shares of common stock pursuant to our dividend reinvestment plan which are not reflected.

(5) As adjusted, additional paid-in capital reflects the issuance of shares of common stock offered hereby ($), less $0.001 par value per share of common stock ($), less the underwriting discounts and commissions ($) and less the net estimated offering costs borne by us ($) related to the issuance of shares.

UNDERWRITING

We are offering the shares of our common stock described in this prospectus supplement through the underwriters named below. Citigroup Global Markets Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated, Morgan Stanley & Co. LLC, UBS Securities LLC and Wells Fargo Securities, LLC are the joint book-running managers of the offering and representatives of the underwriters. We have entered into an underwriting agreement with the representatives. Subject to the terms and conditions of the underwriting agreement, each of the underwriters has severally agreed to purchase the number of shares of common stock listed next to its name in the following table.

Underwriters	**Number of Shares**
Citigroup Global Markets Inc.	
Merrill Lynch, Pierce, Fenner & Smith Incorporated	
Morgan Stanley & Co. LLC	
UBS Securities LLC	
Wells Fargo Securities, LLC	
Robert W. Baird & Co. Incorporated	
RBC Capital Markets, LLC	
Stifel, Nicolaus & Company, Incorporated	
Total	

The underwriting agreement provides that the obligations of the underwriters to purchase the shares included in this offering are subject to approval of legal matters by counsel and to other conditions. The underwriting agreement provides that the underwriters must buy all of the shares if they buy any of them. However, the underwriters are not required to take or pay for the shares covered by the underwriters over-allotment option described below.

Our common stock is offered subject to a number of conditions, including:

- receipt and acceptance of our common stock by the underwriters; and
- the underwriters right to reject orders in whole or in part.

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses electronically.

OVER-ALLOTMENT OPTION

We have granted the underwriters an option to buy up to an aggregate of 1,005,000 additional shares of common stock. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with this offering. The underwriters have 45 days from the date of this prospectus supplement to exercise this option. If the underwriters exercise this option, they will each purchase additional shares approximately in proportion to the amounts specified in the table above.

COMMISSIONS AND DISCOUNTS

Shares sold by the underwriters to the public will be offered at the public offering price set forth on the cover page of this prospectus supplement. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to $ per share from the public offering price. Any of these securities dealers may resell any shares purchased from the underwriters to other brokers or dealers at a discount of up to $ per share from the public offering price. Sales of shares made outside of the U.S. may be made by affiliates of the underwriters. If all of the shares are not sold at the public offering price, the representatives may change the offering price and the other selling terms. Upon execution of the underwriting agreement, the underwriters will be obligated to purchase the shares at the prices and upon the terms stated therein and, as a result, will thereafter bear any risk associated with changing the offering price to the public and other selling terms. The sales load and underwriting discount is equal to % of the initial offering price. Investors must pay for their shares of common stock on or before March , 2012.

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The following table shows the per share and total underwriting discounts and commissions we will pay to the underwriters assuming both no exercise and full exercise of the underwriters option to purchase up to an additional 1,005,000 shares of common stock.

	No Exercise	Full Exercise
Per share	$	$
Total	$	$

We estimate that the total expenses of this offering payable by us, not including the underwriting discounts and commissions, will be approximately $.

NO SALES OF SIMILAR SECURITIES

We, our Adviser and certain officers of our Adviser, including all of our officers, and our directors who own shares of our common stock and/or purchase shares of our common stock in this offering, have entered into lock-up agreements with the underwriters. Under these agreements, subject to certain exceptions, we and each of these persons may not, without the prior written consent of the representatives, offer, sell, contract to sell or otherwise dispose of, directly or indirectly, or hedge our common stock or securities convertible into or exchangeable or exercisable for our common stock for a period of 60 days after the date of this prospectus supplement. In the event that either (x) during the last 17 days of the 60-day period referred to above, we issue an earnings release or (y) prior to the expiration of such 60 days, we announce that we will release earnings during the 16-day period beginning on the last day of such 60-day period, the restrictions described above shall continue to apply until the expiration of the 18-day period beginning on the date of the earnings or the press release.

We have agreed to indemnify the underwriters against certain liabilities, including certain liabilities under the Securities Act of 1933, as amended (the Securities Act). If we are unable to provide this indemnification, we have agreed to contribute to payments the underwriters may be required to make in respect of those liabilities.

NYSE LISTING

Our currently outstanding shares of common stock are, and the shares of common stock sold pursuant to this prospectus supplement and the accompanying prospectus, subject to notice of issuance, will be listed on the NYSE under the symbol KYN.

PRICE STABILIZATION, SHORT POSITIONS

In connection with this offering, the underwriters may engage in activities that stabilize, maintain or otherwise affect the price of our common stock, including:

- stabilizing transactions;
- short sales;
- purchases to cover positions created by short sales;
- imposition of penalty bids; and

syndicate covering transactions.

Stabilizing transactions consist of bids or purchases made for the purpose of preventing or retarding a decline in the market price of our common stock while this offering is in progress. These transactions may also include making short sales of our common stock which involve the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering.

Short sales may be covered short sales, which are short positions in an amount not greater than the underwriters over-allotment option referred to above, or may be naked short sales, which are short positions in excess of that amount.

The underwriters may close out any covered short position by either exercising their over-allotment option, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option.

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The underwriters may close out any naked short sale position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchased in this offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discounts and commissions received by it because the representatives have repurchased shares sold by or for the account of that underwriter in stabilizing or short covering transactions.

As a result of these activities, the price of our common stock may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. The underwriters may carry out these transactions on the NYSE or in the over-the-counter market, or otherwise.

Neither we nor any of the underw