PROSPECTUS

30,000,000 Shares

Kayne Anderson

MLP Investment Company

Common Stock
$25.00 per share

Kayne Anderson MLP Investment Company is a newly organized, 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 net assets plus any borrowings (our "total assets") in energy-related master limited partnerships and their affiliates (collectively, "MLPs"), and in other companies that, as their principal business, operate assets used in the gathering, transporting, processing, storing, refining, distributing, mining or marketing natural gas, natural gas liquids (including propane), crude oil, refined petroleum products or coal (collectively with MLPs, "Midstream Energy Companies"). We intend to 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. Additionally, we may invest in debt securities of MLPs and other Midstream Energy Companies. Once we are fully invested in accordance with our investment objective, we intend to have invested 50% or more of our total assets in publicly traded securities of MLPs and other Midstream Energy Companies, and 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 will be managed by Kayne Anderson Capital Advisors, L.P. ("Kayne Anderson"), a leading private equity investor in MLPs. Since 1984, Kayne Anderson has managed alternative assets with a focus on achieving absolute returns (as opposed to relative performance against a benchmark index) on a risk-adjusted basis through a disciplined

(continued on following page)

Investing in our common stock may be speculative and involve a high degree of risk and should not constitute a complete investment program. Before buying any shares, you should read the discussion of the material risks of investing in our common stock in "Risk Factors" beginning on page 15 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Share	Total(2)
Public Offering Price	$25.00	$750,000,000
Underwriting Discount	$ 1.25	$ 37,500,000
Proceeds, Before Expenses, To Us(1)	$23.75	$712,500,000

(1) The underwriters have agreed to reimburse us approximately $375,000 for certain offering expenses. After such reimbursement, we estimate that we will incur approximately $1,595,800 in expenses in connection with this offering.

(2) The underwriters also may purchase up to an additional 4,500,000 shares at the public offering price, less the underwriting discount, within 45 days from the date of this prospectus to cover over-allotments. If all such shares are purchased, the total public offering price will be $862,500,000, the total underwriting discount will be $43,125,000 and the total proceeds, before expenses, to us will be $819,375,000.

The underwriters expect to deliver the shares to purchasers on or about September 30, 2004.

Joint Book-Running Managers

Citigroup **UBS Investment Bank**

RBC Capital Markets

Deutsche Bank Securities

Sanders Morris Harris

September 27, 2004

(continued from previous page)

investment process. Its investment strategies seek to identify and exploit investment niches that it believes are less well understood and generally not followed by the broader investor community. As of July 31, 2004, Kayne Anderson managed approximately $1.4 billion in private equity and other alternative investments, including approximately $425 million in MLPs and other Midstream Energy Companies. We believe that Kayne Anderson's knowledge of and relationships within the MLP market enables it to identify and take advantage of both public and private MLP investment opportunities.

Because we are newly organized, our common stock has no history of public trading. Our common stock has been approved for listing on the New York Stock Exchange, subject to official notice of issuance, under the symbol "KYN".

We generally will seek to enhance our total return through the use of financial leverage, which may include the issuance of preferred stock, commercial paper or notes and other forms of borrowing, in an aggregate amount that is not expected to exceed 30% of our total assets, inclusive of such financial leverage. There is no assurance that we will utilize financial leverage or, if financial leverage is utilized, that it will be successful in enhancing the level of our total return. The net asset value of our common stock will be reduced by the fees and issuance costs of any financial leverage. We do not intend to use financial leverage until the proceeds of this offering are substantially invested in accordance with our investment objective. We anticipate that we will invest the majority of the net proceeds of the offering in public MLP and other Midstream Energy Company securities within three months, and may thereafter use financial leverage. See "Use of Financial Leverage — Effects of Leverage" at page 41, "Risk Factors — Leverage Risk" at page 20, and "Description of Capital Stock" at page 52.

We will be treated as a corporation for federal income tax purposes and, as a result, unlike most investment companies, we will be subject to corporate income tax to the extent we recognize taxable income. As a partner in MLPs, we will have to report our allocable share of each MLP's taxable income in computing our taxable income, whether or not we actually receive any cash from such MLP. However, MLPs are not subject to corporate income taxes and, as a result, can generally pay distributions at a higher rate to their partners. The types of MLPs in which we intend to invest historically have made cash distributions to limited partners that exceed the amount of taxable income allocable to limited partners, due to a variety of factors, including significant non-cash deductions, such as depreciation. Such excess cash distributions would not be taxed as income to us in that tax year but rather would be treated as a non-taxable return of capital to the extent of our basis. As a result, the tax related to such distribution would be deferred until subsequent sale of our MLP units, at which time we would pay any required tax on capital gain, and the cash available to us to pay dividends to our common stockholders in the year of such distribution would be greater than if such distribution were taxed immediately. There is no assurance that our expectation regarding the tax character of MLP distributions will be realized. If this expectation is not realized, there will be greater tax expense borne by us and less cash available to distribute to stockholders. Currently, the maximum regular federal income tax rate for a corporation is generally 35%, but we may be subject to a 20% alternative minimum tax on our alternative minimum taxable income to the extent that the alternative minimum tax exceeds our regular income tax. See "Tax Matters" at page 56.

We intend to pay current dividends to our common stockholders. Our distributions of our distributable cash flow will be treated as a taxable dividend to our common stockholders to the extent of our current or accumulated earnings and profits. Under current law, dividends are generally subject to a maximum federal income tax rate of 15% for individual U.S. stockholders, provided a holding period requirement and certain other requirements are met. To the extent that distributions to a stockholder exceed our earnings and profits, a stockholder's basis in our common stock will be reduced and, if a stockholder has no further basis in our shares, a stockholder will report any excess as capital gain. Under current law, long-term capital gains are generally subject to a maximum federal income tax rate of 15% for individual U.S. stockholders. Stockholders will receive Forms 1099 from us. As with any investment, you should consult your own tax professional about your particular consequences of investing in our common stock. See "Dividends" at page 29 and "Tax Matters" at page 56.

Shares of closed-end investment companies frequently trade at discounts from their net asset values. If our common stock trades at a discount to our net asset value, the risk of loss may increase for purchasers in this offering. This risk may be greater for investors who expect to sell their common stock in a relatively short period after completion of the public offering. See "Risk Factors — Market Discount From Net Asset Value Risk" at page 19.

You should rely only on the information contained or incorporated by reference in this prospectus. We have not, and the underwriters have not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.

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This prospectus sets forth concisely the information about us that a prospective investor ought to know before investing. You should read this prospectus before deciding whether to invest and retain it for future reference. A statement of additional information, dated September 27, 2004, containing additional information about us, has been filed with the Securities and Exchange Commission and is incorporated by reference in its entirety into this prospectus. You may request a free copy of our statement of additional information, the table of contents of which is on page 64 of this prospectus, by calling (877) 657-3863/MLP-FUND or by writing to us, or you may obtain a copy (and other information regarding us) from the Securities and Exchange Commission's web site (*http://www.sec.gov*).

Through and including October 22, 2004 (the 25th day after the date of this prospectus), all dealers that buy, sell or trade our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information that you should consider before investing in our common stock. You should carefully read the entire prospectus, including the documents incorporated by reference into it, particularly the section entitled "Risk Factors" beginning on page 15. Except where the context suggests otherwise, the terms "we," "us," and "our" refer to Kayne Anderson MLP Investment Company; "Kayne Anderson" refers to Kayne Anderson Capital Advisors, L.P.; "midstream energy assets" refers to assets used in the gathering, transporting, processing, storing, refining, distributing, mining or marketing natural gas, natural gas liquids (including propane), crude oil, refined petroleum products or coal; "MLPs" refers to energy-related master limited partnerships and their affiliates; and "Midstream Energy Companies" means (i) MLPs and (ii) other companies that, as their principal business, operate midstream energy assets.

What is Kayne Anderson MLP Investment Company?

Kayne Anderson MLP Investment Company is a newly organized, non-diversified, closed-end 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 will also 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. For purposes of our investment objective, the term "MLPs" includes affiliates of MLPs that own general partner interests or, in some cases, subordinated units, registered or unregistered common units, or other limited partner units in an MLP.

Our investments in the securities of MLPs and other Midstream Energy Companies will be principally in equity securities issued by MLPs. Generally, we will 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. Finally, we may also, from time to time, invest in debt securities of MLPs and other Midstream Energy Companies with varying maturities of up to 30 years.

Once we are fully invested in accordance with our investment objective, we intend to have invested 50% or more of our total assets in publicly traded securities of MLPs and other Midstream Energy Companies and 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 may 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 least B3 by Moody's Investors Service, Inc. or at least B- by Standard & Poor's at the time of purchase, or comparably rated by another rating agency. 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. We generally will seek to enhance our total return through the use of financial leverage, which may include the issuance of preferred stock, commercial paper or notes and other forms of borrowing, in an aggregate amount that is not expected to exceed 30% of our total assets, which includes assets obtained through financial leverage.

On a limited basis, we may also use derivative investments to hedge against interest rate and market risks. We may also utilize short sales to hedge such risks and as part of short sale investment strategies.

We believe it will take us up to nine months to invest a substantial amount of our total assets in private investments. However, we anticipate that we will invest the majority of the net proceeds of the offering in public MLP and other Midstream Energy Company securities within three months, and may thereafter use financial leverage. Additionally, upon identifying appropriate private investments, we may sell some of our public securities or use leverage to provide funds for investment in those private

opportunities. Pending investment in publicly traded securities, it is anticipated that the proceeds will be invested in cash or cash equivalents.

We intend to pay current dividends to our common stockholders out of assets legally available therefor. Because many MLPs distribute cash in excess of the taxable income allocable to their investors, we believe that a significant portion of our income will be tax deferred, thereby maximizing cash available for dividends paid by us to our common stockholders.

No assurance can be given that our investment objective will be achieved.

See "Kayne Anderson MLP Investment Company" at page 30, "Risk Factors" at page 15, and "Tax Matters" at page 56 in this prospectus and "Investment Policies" in our statement of additional information.

Who is Kayne Anderson Capital Advisors?

Kayne Anderson Capital Advisors, L.P. will be our investment adviser, responsible for implementing and administering our investment strategy. The business of Kayne Anderson was begun in 1984 by its founders Richard Kayne and John Anderson. Since its founding, Kayne Anderson has managed alternative assets with a focus on achieving absolute returns (as opposed to relative performance against a benchmark index) on a risk-adjusted basis through a disciplined investment process. Its investment strategies seek to identify and exploit investment niches that it believes are less well understood and generally not followed by the broader investor community. As of July 31, 2004, Kayne Anderson managed approximately $1.4 billion in private equity and other alternative investments. Kayne Anderson has invested in MLPs and other Midstream Energy Companies since 1998 and currently manages more than $425 million invested in this sector. 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 enjoy many long-term relationships with industry managers, which we believe gives Kayne Anderson an important advantage in sourcing and structuring private investments.

Kayne Anderson's management of our portfolio will be led by three of its senior managing directors, J.C. Frey, David Fleischer and Kevin McCarthy, who together have more than 50 years of experience in the investment industry. Messrs. Frey and Fleischer will focus on our investments in publicly traded securities of MLPs and other Midstream Energy Companies. Mr. McCarthy, who will serve as our Chief Executive Officer with general oversight responsibility, will focus on our private investments. Mr. Frey began investing in MLPs on behalf of Kayne Anderson in 1998 and has served as portfolio manager of Kayne Anderson's MLP funds since their inception in 2000. Mr. Fleischer joined Kayne Anderson in January 2004 from Goldman, Sachs & Co. where he was responsible for investment research of MLPs, natural gas companies and gas utilities, served on the firm's Investment Policy and Stock Selection Committee and was the business unit leader for the firm's energy research. Mr. McCarthy joined Kayne Anderson in June 2004 from UBS Securities LLC where he was global head of energy. In this role, he had senior responsibility for all of UBS' energy investment banking activities, including direct responsibility for securities underwriting and mergers and acquisitions in the MLP industry. We will also draw on the experience and expertise of other senior professionals at Kayne Anderson, including its Chief Executive Officer Richard Kayne, and its Chief Investment Officer Robert V. Sinnott. Messrs. Kayne and Sinnott have approximately 70 combined years of investment experience and have been principally responsible for executing Kayne Anderson's energy industry investments in general, and its private investments in MLPs, in particular.

Why does our MLP strategy present an attractive market opportunity?

We will invest principally in MLPs. We believe that this strategy offers an opportunity for attractive risk-adjusted returns based on several characteristics of MLPs, including the following:

- ***MLPs provide steady distributions with attractive growth profiles.*** During the period January 1, 1998 through July 31, 2004, publicly-traded energy-related master limited partnerships provided an average annual yield of 8.7%. Additionally, during that same time period, distributions from these master limited partnerships increased at a compounded average annual rate of 6.4%. Currently, these master limited partnerships provide a 7.5% average yield. This historical information is for the energy-related master limited partnerships that are currently traded publicly (fewer than 35), and is derived by us from financial industry databases and public filings. We believe that current market conditions are conducive for continued growth in distributions. However, there can be no assurance that these levels will be maintained in the future.

- ***MLPs operate strategically important assets that typically generate stable cash flows.*** MLPs operate in businesses that are necessary for providing consumers with access to energy resources. We believe that due to the fee-based nature and long-term importance of their midstream energy assets, MLPs typically generate stable cash flows throughout economic cycles. Additionally, certain businesses operated by MLPs are regulated by federal and state authorities that ensure that rates charged are fair and just. In most cases, such regulation provides for highly predictable cash flows.

- ***The midstream energy sector has high barriers to entry.*** Due to the high cost of constructing midstream energy assets and the difficulty of developing the expertise necessary to comply with the regulations governing the operation of such assets, the barriers to enter the midstream energy sector are high. Therefore, currently existing MLPs with large asset bases and significant operations enjoy a competitive advantage over other entities seeking to enter the sector.

- ***Due to a lack of broad institutional following and limited retail focus, the MLP market experiences inefficiencies which can be exploited by a knowledgeable investor.*** There are adverse consequences of MLP ownership for many institutional investors, including the generation of non-qualifying income for regulated investment companies (see "Kayne Anderson MLP Investment Company — Comparison with Direct Investments in MLPs" at page 34). Further, because MLPs generate unrelated business taxable income ("UBTI"), they are typically not held by tax-exempt investors such as pension plans, endowments, employee benefit plans, or individual retirement accounts. Also, income and gains from MLPs are subject to the Foreign Investment in Real Property Tax Act ("FIRPTA"), limiting the investment by non-U.S. investors in the sector. As a result, MLPs are held predominantly by taxable U.S. retail investors. Further, due to the limited public market float for MLP common units and tax-reporting burdens and complexities associated with MLP investments, MLPs appeal only to a segment of such retail investors. Due to this limited, retail-oriented focus, the market for MLPs can experience inefficiencies which can be exploited by a knowledgeable investor.

We believe that the attractive characteristics of MLPs are further supported by the positive dynamics currently affecting the midstream energy sector, including the following:

- ***MLPs are well-positioned to capitalize on the ongoing divestitures of midstream energy assets.*** As major oil and gas companies continue to focus on international opportunities and core exploration and production activities, such companies continue to sell many of their North American midstream energy assets. Additionally, certain utilities and energy merchants are selling their midstream energy assets, in part to improve their credit profiles. MLPs, as tax pass-through entities, have cost of capital advantages over corporate purchasers. As a result, MLPs have been active acquirors of midstream energy assets over the last several years. We believe this large pool of midstream energy assets should provide MLPs with significant acquisition opportunities to augment their internal growth prospects.

- ***Many MLPs have significant available capacity which allows them to benefit disproportionately from a growing economy.*** As the overall economy expands, energy demand increases and in certain cases, rates for assets owned by MLPs increase. Many of the MLPs in which we intend to invest have significant additional available operating capacity. As a result, these MLPs benefit from significant economies of scale and can expand production at relatively low cost levels. Small increases in energy demand can result in significant growth in the distributable cash flows for such MLPs. We believe this internal growth is an important component of MLPs' ability to increase distributions.

There are, however, risks related to investments in MLPs, including energy sector risks that affect the business, operations and earnings of MLPs, as well as other Midstream Energy Companies generally, and the risk that the tax we must pay on distributions received from the MLPs in which we invest will be greater than we anticipate, or that the MLPs would incur an entity-level tax and would be able to distribute less to us, each of which would negatively affect the amount of distributions that we can pay to our stockholders. See "Risk Factors — MLP and other Midstream Energy Company Risk" and "— Tax Risks" beginning on pages 17 and 18 and the other information included in this prospectus for information on these risks.

What are Kayne Anderson's competitive advantages?

We believe that Kayne Anderson is particularly qualified and positioned both to identify appropriate publicly traded market MLP investment opportunities and to source and structure private investments in MLPs due to the following:

Management Expertise in Alternative Investing. Kayne Anderson has specialized in pursuing alternative investment strategies since 1984. Kayne Anderson manages approximately $1.4 billion of private equity and other alternative investments in public and private companies across 13 investment funds and a limited number of separate accounts.

Substantial MLP Market Knowledge and Industry Relationships. Through its activities as a leading investor in MLP securities, Kayne Anderson has developed broad expertise and important relationships with industry managers in the MLP sector. We believe that Kayne Anderson's industry knowledge and relationships will enable us to capitalize on opportunities to source investments in MLPs that may not be readily available to other investors. Such investment opportunities are expected to include purchasing larger blocks of limited partner interests, often at discounts to market prices, non-controlling general partner interests and positions in companies expected to form an MLP. We believe that Kayne Anderson's substantial MLP market knowledge provides it with the ability to recognize long-term trends in the industry and to identify differences in value among individual MLPs, which abilities are expected to benefit our portfolio of public investments in MLPs and other Midstream Energy Companies.

Extensive Transaction Structuring Expertise and Capability. Kayne Anderson has industry-leading experience identifying and structuring investments in MLP securities. This experience, combined with Kayne Anderson's ability to engage in regular dialogue with industry participants and other large holders of MLP securities to better understand the capital needs of prospective portfolio companies, gives it an advantage in structuring transactions mutually attractive to us and the portfolio company. Further, our ability to fund a meaningful amount of the capital needs of prospective portfolio companies provides us an advantage over other potential investors with less capital to employ in the sector. These investments may include purchases of subordinated units, restricted common units or general partner interests.

Ability to Trade Efficiently in a Relatively Illiquid Market. We believe that Kayne Anderson's ability to generate favorable returns on public investments in MLPs is aided by its substantial experience actively trading MLPs and similar securities. Through its affiliated broker-dealer, Kayne Anderson maintains its own trading desk, providing it with the ability to understand day-to-day market conditions for MLP securities, which have historically been characterized by lower daily trading volumes than comparable corporate equities. We believe that Kayne Anderson's direct equity market access enables it to make better informed investment decisions and to execute its investment strategy with greater efficiency.

How does an investment in our common stock compare with direct investment in MLPs?

We are intended to be an efficient vehicle for investing in a portfolio comprised principally of MLP equity securities. We believe that an investor in our common stock will benefit from Kayne Anderson's investment experience, market knowledge and relationships, as well as a number of portfolio and tax features that would not be available if such investor were to make investment directly in MLPs, including some or all of the following:

- We provide, through a single investment vehicle, an investment in a portfolio of securities issued by MLPs and other Midstream Energy Companies.
- We intend to invest up to 50% of our total assets in private investments in MLPs. We believe that we can make private purchases of securities at discounts or with other beneficial terms. Such investment opportunities are typically only available to a limited number of knowledgeable investors with a large amount of capital available for investment in any particular security or issuer.
- Our common stockholders will receive a single tax reporting statement (on Form 1099) and will only be required to file income tax returns in states in which they would ordinarily file. In contrast, a person who invests directly in MLPs receives a statement of partnership items (on Schedule K-1) from each MLP owned and may be required to file income tax returns in each state in which such MLPs generate income.
- Our common stock dividends will be treated as qualifying income for each of our common stockholders that is an investment company (including mutual funds) that have elected to be taxed as regulated investment companies. In contrast, income received directly by such investment companies from MLPs is not currently treated as qualifying income by such investment companies. Subject to certain holding period requirements, corporate investors in our common stock generally will be entitled to dividends-received deduction treatment on our dividends.
- Our common stock dividends will generally be excluded from treatment as UBTI (except for those stockholders who debt-finance the purchase of our common stock). Accordingly, tax-exempt investors, including pension plans, employee benefit plans and individual retirement accounts, will not have UBTI upon receipt of dividends from us, whereas a tax-exempt limited partner's allocable share of income of an MLP is generally treated as UBTI.

Unlike MLPs, we will be obligated to pay federal and state tax with respect to our income, thereby subjecting our income to a double layer of taxation upon distribution to our taxable common stockholders. However, the types of MLPs in which we intend to invest historically have made cash distributions to limited partners that exceed the amount of taxable income allocable to limited partners, due to a variety of factors, including significant non-cash deductions, such as depreciation. If the cash distributions exceed the taxable income reported in a particular tax year, such excess cash distributions would not be taxed as income to us in that tax year but rather would be treated as a non-taxable return of capital to the extent of our basis, and our basis in our MLP units would be decreased by the amount of such excess, which would potentially increase our taxable gain upon any subsequent sale of our MLP units. For federal income tax purposes, unlike individuals, who are generally subject to a maximum long-term capital gains rate of 15% under current law, we will be taxed upon any recognized long-term capital gains at the same rate our ordinary income is taxed (generally 35%). See "Tax Matters" at page 56. Like other investment companies, our common stockholders will bear our operating costs, including management fees, custody and administration charges, and the costs of operating as an investment company.

Why do we intend generally to use financial leverage?

We generally will seek to enhance our total return through the use of financial leverage, which may include the issuance of shares of preferred stock, commercial paper or notes and other borrowings (each a "Leverage Instrument" and collectively, the "Leverage Instruments") in an aggregate amount of up to 30% of our total assets, which includes assets obtained through such financial leverage. We may not be leveraged at all times and the amount of leverage, if any, may vary depending on a variety of factors,

including the costs that we would incur as a result of leverage, market conditions and available investment opportunities. Leverage creates a greater risk of loss, as well as potential for more gain, for our common stock than if leverage is not used. Leverage Instruments will have seniority over our common stock. If we use Leverage Instruments, associated costs will be borne immediately by common stockholders and result in a reduction of the net asset value of our common stock. We do not intend to use Leverage Instruments until the proceeds of this offering are substantially invested in accordance with our investment objective. See "Use of Financial Leverage" at page 40.

Because Kayne Anderson's fee is based upon a percentage of our total assets, Kayne Anderson's fee is likely to be higher if we employ leverage. Therefore, Kayne Anderson will have a financial incentive to use leverage, which may create a conflict of interest between Kayne Anderson and our common stockholders. There can be no assurance that a leveraging strategy will be used or that it will be successful during any period in which it is used. The use of leverage involves significant risks. See "Risk Factors — Leverage Risk" at page 20.

What risk management techniques may we use?

We may, but are not required to, use various hedging and other transactions to seek to manage interest rate and market risks. See "Risk Factors — Leverage Risk" at page 20, "— Derivatives Risk" at page 23, and "Kayne Anderson MLP Investment Company — Investment Practices — Hedging and Other Risk Management Transactions" at page 38 in this prospectus and "Our Investments — Our Use of Derivatives, Options and Hedging Transactions," in our statement of additional information. There is no guarantee we will use these risk management techniques.

THE OFFERING

Common stock offered by us .... 30,000,000 shares, excluding 4,500,000 shares of common stock issuable pursuant to the over-allotment option granted to the underwriters.

Common stock to be outstanding after this offering .... 30,004,000 shares, excluding 4,500,000 shares of common stock issuable pursuant to the over-allotment option granted to the underwriters.

Use of proceeds .... The net proceeds of the offering of common stock will be approximately $710,754,200 ($817,629,200 if the underwriters exercise the over-allotment option in full) after payment of the estimated organizational and offering expenses and the deduction of the underwriting discount. We will invest the net proceeds of the offering in accordance with our investment objective and policies as described herein.

We believe it will take us up to nine months to invest a substantial amount of our total assets in private investments. However, we anticipate that we will invest the majority of the net proceeds of the offering in public MLP and other Midstream Energy Company securities within three months, and may thereafter use financial leverage. Additionally, upon identifying appropriate private investments, we may sell some of our public securities or use leverage to provide funds for investment in those private opportunities. Pending investment in publicly traded securities, it is anticipated that the proceeds will be invested in cash or cash equivalents.

Dividends .... We intend to pay quarterly dividends to our common stockholders funded by substantially all of our distributable cash flow. Our distributable cash flow is the amount received by us as cash or paid-in-kind distributions from MLPs or other Midstream Energy Companies, interest payments received on debt securities owned by us and other payments on securities owned by us, less current or anticipated operating expenses, current (but not deferred) taxes on our taxable income, and our leverage costs.

Our quarterly dividends will be authorized by our Board of Directors out of funds legally available therefor. We expect that we will declare and pay a dividend no later than January 31, 2005 (for the period from the closing of this offering to November 30, 2004).

We expect that a significant portion of our dividends will be made from sources other than our distributable cash flow, such as gains realized upon the sale of portfolio securities. Our dividends may also consist of a return of investors' capital for federal income tax purposes. There is no assurance we will continue to pay regular dividends or that we will do so at a particular rate. See "Dividends" at page 29.

Taxation .... We will not elect to be treated as a regulated investment company under the Internal Revenue Code. Therefore, we will pay federal and applicable state corporate taxes on our taxable

income. The types of MLPs in which we intend to invest historically have made cash distributions to limited partners that exceed the amount of taxable income allocable to limited partners, due to a variety of factors, including significant non-cash deductions, such as depreciation. If the cash distributions exceed the taxable income reported in a particular tax year, such excess cash distributions would not be taxed as income to us in that tax year but rather would be treated as a return of capital for federal income tax purposes to the extent of our basis in our MLP units. See "Tax Matters" at page 56.

Stockholder tax features .... We expect to pay cash distributions to our common stockholders in excess of our taxable income per share. If we distribute cash from current and accumulated earnings and profits as computed for federal income tax purposes, such distributions will generally be taxable to stockholders in the current period as dividend income for federal income tax purposes. Subject to certain holding period requirements, such dividend income generally will qualify for treatment as "qualified dividend income" eligible for taxation at reduced rates under current law. If our distributions exceed our current and accumulated earnings and profits as computed for federal income tax purposes, such excess distributions will constitute a non-taxable return of capital to the extent of a common stockholder's basis in our common stock and will result in a reduction of such basis. To the extent such excess exceeds a common stockholder's basis in our common stock, such excess will be taxed as capital gain. We expect that a significant portion of our distributions to our common stockholders will constitute a non-taxable return of capital. Upon the sale of common stock, a common stockholder generally will recognize capital gain or loss measured by the difference between the sale proceeds received by our common stockholder and our common stockholder's federal income tax basis in our common stock sold, as adjusted to reflect return of capital. See "Tax Matters" at page 56.

Risk considerations .... An investment in our common stock involves substantial risks, including the risks summarized below.

Because we are a newly organized company, we have no operating history and we are subject to all of the business risks and uncertainties associated with any new business. An investment in our common stock is subject to investment risk, including the possible loss of the entire amount that you invest.

We intend to invest at least 85% of our assets in the MLPs and other Midstream Energy Companies, which are subject to certain additional risks, such as supply and demand risk, depletion and exploration risk, commodity pricing risk, acquisition risk, and the risk associated with the hazards inherent in midstream energy industry activities. In addition, the cash flow we receive from our investments will be dependent on the amount of cash that each MLP in our portfolio has available for distributions and the tax character of such distributions, which are largely dependent on

factors affecting the MLP's operations and factors affecting the energy industry in general.

Although we intend to invest the proceeds of this offering in accordance with our investment objective as soon as practicable, such investments, particularly those in privately placed securities, may be delayed if suitable investments are unavailable at the time or if we are unable to secure firm commitments for direct placements.

Shares of closed-end investment companies frequently trade at discounts from their net asset values; accordingly, our common stock may trade at a price that is less than the initial offering price or at a discount from our net asset value.

We anticipate that we will invest the majority of the net proceeds of the offering in public MLP and other Midstream Energy Company securities within three months, and may thereafter use financial leverage. Although our use of leverage may create an opportunity for increased returns for our common stock, it also results in additional risks and can magnify the effect of any losses.

Certain of the publicly-traded securities in our portfolio, particularly those with smaller capitalizations, may trade less frequently than other common stocks. Securities with limited trading volumes may display volatile or erratic price movements, and it may be more difficult for us to buy and sell significant amounts of such securities without an unfavorable impact on prevailing market prices. Also, restricted securities in our portfolio may be more difficult to value and we may have difficulty disposing of such assets either in a timely manner or for a reasonable price.

Market prices may not be readily available for some or all of the restricted or unregistered securities in our portfolio. The difficulty in valuing these securities and the absence of an active trading market for these investments may adversely affect our ability to determine our net asset value. Also, we may not be able to realize these securities' true value or may have to delay their sale in order to do so.

Because we will select our public investments from a small pool of publicly traded MLPs, a change in the value of the securities of any one of these MLPs could have a significant impact on our portfolio. In addition, we are a non-diversified investment company and there are no regulatory requirements under the 1940 Act or the Internal Revenue Code on the minimum number or size of securities held by us.

Interest rate risk is the risk that equity and debt securities will decline in value because of changes in market interest rates. Our portfolio investments may be susceptible in the short-term to fluctuations in interest rates. The prices of MLP securities, and thus our net asset value and the market price of our common stock, may increase when interest rates fall and decline when interest rates rise.

We are dependent upon Kayne Anderson's key personnel for our future success and upon their access to certain individuals and investments in the midstream energy industry. In addition, conflicts of interest may arise because Kayne Anderson and its affiliates generally will be carrying on substantial investment activities for other clients, in which we will have no interest.

Our Charter, Bylaws and the Maryland General Corporation Law include provisions that could limit the ability of other entities or persons to acquire control of us, to convert us to open-end status, or to change the composition of our Board of Directors. These provisions could have the effect of discouraging, delaying, deferring or preventing a transaction or a change in control that might otherwise be in the best interests of our stockholders.

See "Risk Factors" beginning on page 15 and the other information included in this prospectus for information on these and other risk factors, all of which you should carefully consider before deciding whether to invest in our common stock.

Tax risks — In addition to other risk considerations, an investment in our common stock will involve certain tax risks, including the following: the risk that an MLP is classified as a corporation rather than a partnership for federal income tax purposes, which may reduce our after-tax return and negatively affect the value of our common stock; the risk of changes in tax laws or regulations, or interpretations thereof, which could adversely affect us or the MLPs in which we invest; the risk of increased current tax liability to us due to the fluctuation in the percentage of an MLP's income and gains which is offset by tax deductions and losses; the risk that upon our sale of an MLP security, we will be liable for previously deferred taxes; and the risk of a reduction in the percentage of a distribution offset by tax deductions or an increase in our portfolio turnover, which will reduce that portion of our common stock dividend treated as a tax-deferred return of capital and increase that portion treated as dividend income, resulting in lower after-tax dividends to our common stockholders.

See "Risk Factors — Tax Risks" at page 18 for more information on these risks.

Dividend reinvestment plan — We have a dividend reinvestment plan for our common stockholders. This is an "opt out" dividend reinvestment plan. As a result, if we declare a dividend, then our common stockholders' cash dividends will be automatically reinvested in additional shares of our common stock, unless they specifically elect to receive cash dividends. Common stockholders who receive dividends in the form of stock will be subject to the same federal, state and local tax consequences as common stockholders who elect to receive their dividends in cash. See "Dividend Reinvestment Plan" at page 51.

New York Stock Exchange symbol — "KYN"

Trading at a discount . . . . Shares of closed-end investment companies frequently trade at discounts to their net asset values. The possibility that our common stock may trade at a discount to our net asset value is separate and distinct from the risk that our common stock's net asset value may decline. We cannot predict whether our common stock will trade above, at or below its net asset value.

Management arrangements . . . . Kayne Anderson will serve as our investment adviser and provide certain administrative services to us. See "Kayne Anderson MLP Investment Company — About Kayne Anderson" at page 31 and "Management — Investment Management Agreement" at page 47.

Custodian . . . . The Custodial Trust Company acts as custodian of our securities and other assets. See "Custodian" at page 62.

Transfer Agent and Dividend-Paying Agent . . . . American Stock Transfer & Trust Company acts as our transfer agent and dividend-paying agent. See "Transfer Agent and Dividend-Paying Agent" at page 62.

Administrator . . . . Bear Stearns Funds Management Inc. has an agreement with us to provide certain administrative services. See "Administrator" at page 62.

Fund Accountant . . . . Ultimus Fund Solutions, LLC acts as our fund accountant. See "Fund Accountant" at page 63.

FEES AND EXPENSES

The following table assumes the use of Leverage Instruments in an amount equal to 30% of our total assets (after their issuance) and shows our expenses as a percentage of net assets attributable to common stock.

Stockholder Transaction Expenses:

Sales Load Paid by You (as a percentage of offering price)	5.00%
Offering Expenses Borne by Us (as a percentage of offering price)	0.21%
Dividend Reinvestment Plan Fees	None(1)

Percentage of Net Assets Attributable to Common Stock (Assumes Leverage Instruments are Used) (2)

Annual Expenses:	
Management Fees(3)	2.50%
Other Expenses	0.28%(4)
Total Annual Expenses	2.78%

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

(2) The table presented below in this footnote estimates what our annual expenses would be stated as percentages of our net assets attributable to common stock. This table assumes we issue the same number of shares of common stock, but unlike the table above, assumes that no Leverage Instruments are used by us. This will be the case, for instance, in the period prior to our expected use of Leverage Instruments. In accordance with these assumptions, our expenses would be estimated to be as follows:

Percentage of Net Assets Attributable to Common Stock (Assumes No Leverage Instruments are Used)

Annual Expenses:	
Management Fees(3)	1.75%
Other Expenses	0.22%
Total Annual Expenses	1.97%

(3) Represents the basic fee payable to Kayne Anderson. The Management Fees as a percentage of average net assets attributable to our common stock may be as low as 1.07% or as high as and 3.93% (0.75% and 2.75%, respectively, if no Leverage Instruments are used by us), based on our relative investment performance. See "Management — Investment Management Agreement" at page 47.

(4) The costs of this offering are not included in the expenses shown in this table. In addition, assuming the issuance of 30,000,000 shares of common stock, the issuance costs of the Leverage Instruments are estimated to be $600,000, or approximately $0.02 per share of common stock. These offering costs are not included among the expenses in this table. Further, if we use Leverage Instruments, the ongoing costs associated with such leverage (such as interest expenses or dividend payments), estimated to be approximately 2.50% of the total dollar amount of the leverage, will be borne by our common stockholders and result in a reduction of the net asset value of our common stock.

The purpose of the table above and the example below is to help you understand all fees and expenses that you would bear directly or indirectly as a holder of our common stock. The expenses shown in the table under "Other Expenses" and "Total Annual Expenses" are based on estimated amounts for our first

full year of operations and assume that we issue $750,000,000 in common stock. See "Management" at page 43 and "Dividend Reinvestment Plan" at page 51.

The following example illustrates the expenses (including the underwriting discount of 5.00% or $1.25 per share of common stock, estimated offering expenses of this offering of 0.21%, or $0.05 per share of common stock, and the estimated offering costs of issuing Leverage Instruments assuming we issue Leverage Instruments representing 30% of our total assets (after their issuance) of $0.02 per share of common stock) that you would pay on a $1,000 investment in our common stock, assuming total annual expenses of 3.87% of net assets attributable to our common stock and a 5% annual return, as required by Securities and Exchange Commission ("SEC") regulations:

1 Year	3 Years	5 Years	10 Years
$91	$169	$248	$453

(1) THE EXAMPLE SHOULD NOT BE CONSIDERED A REPRESENTATION OF FUTURE EXPENSES. The example assumes that the estimated "Other Expenses" set forth in the Annual Expenses table are accurate and that all dividends and distributions are reinvested at net asset value. ACTUAL EXPENSES MAY BE GREATER OR LESS THAN THOSE SHOWN. Moreover, our actual rate of return may be greater or less than the hypothetical 5% return shown in the example. In the event that we do not use any leverage, an investor would pay the following expenses based on the assumptions in the example: 1 Year, $72; 3 Years, $113; 5 Years, $156; and 10 Years, $276.

FORWARD-LOOKING STATEMENTS

Certain statements in this prospectus constitute forward-looking statements, which involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by such forward-looking statements. Such factors include, among others, those listed under "Risk Factors" in this prospectus and our statement of additional information. In this prospectus, we use words such as "anticipates," "believes," "expects," "intends" and similar expressions to identify forward-looking statements.

The forward-looking statements contained in this prospectus include statements as to:

- our operating results;
- our business prospects;
- the impact of investments that we expect to make;
- our contractual arrangements and relationships with third parties;
- the dependence of our future success on the general economy and its impact on the industries in which we invest;
- our ability to source favorable private investments;
- the ability of the MLPs and other Midstream Energy Companies in which we invest to achieve their objectives;
- our expected financings and investments;
- our use of financial leverage;
- our tax status;
- the tax status of the MLPs in which we intend to invest;
- the adequacy of our cash resources and working capital; and
- the timing and amount of distributions and dividends from the MLPs and other Midstream Energy Companies in which we intend to invest.

We have based the forward-looking statements included in this prospectus on information available to us on the date of this prospectus, and we assume no obligation to update any such forward-looking statements. Although we undertake no obligation to revise or update any forward-looking statements, whether as a result of new information, future events or otherwise, you are advised to consult any additional disclosures that we may make directly to you or through reports that we in the future may file with the SEC, including our annual reports. We acknowledge that, notwithstanding the foregoing statement, the safe harbor for forward-looking statements under the Private Securities Litigation Reform Act of 1995 does not apply to investment companies such as us and statements made in connection with initial public offerings such as this.

RISK FACTORS

General

Risk is inherent in all investing. The following discussion summarizes some of the risks that a potential common stockholder should consider before deciding whether to invest in our common stock. For additional information about the risks associated with investing in our common stock, see "Our Investments" in our statement of additional information.

No Operating or Trading History

We are a newly organized, non-diversified, closed-end management investment company and have no operating or public trading history. Being a newly organized company, we are subject to all of the business risks and uncertainties associated with any new business, including the risk that we will not achieve our investment objective and that the value of your investment could decline substantially.

Investment and Market Risk

An investment in our common stock is subject to investment risk, including the possible loss of the entire amount that you invest. Your investment in our common stock represents an indirect investment in the securities owned by us, some of which will be traded on a national securities exchange or in the over-the-counter markets. An investment in our common stock is not intended to constitute a complete investment program and should not be viewed as such. The value of these publicly traded securities, like other market investments, may move up or down, sometimes rapidly and unpredictably. The value of the securities in which we invest will affect the value of our common stock. Your common stock at any point in time may be worth less than your original investment, even after taking into account the reinvestment of our dividends. We are primarily a long-term investment vehicle and should not be used for short-term trading.

Energy Sector

Certain risks inherent in investing in MLPs and other Midstream Energy Companies include the following:

Supply and Demand Risk. A decrease in the production of natural gas, natural gas liquids ("NGLs"), crude oil, coal or other energy commodities or a decrease in the volume of such commodities available for transportation, mining, processing, storage or distribution may adversely impact the financial performance of MLPs and other Midstream Energy Companies. Production declines and volume decreases could be caused by various factors, including catastrophic events affecting production, depletion of resources, labor difficulties, environmental proceedings, increased regulations, equipment failures and unexpected maintenance problems, import supply disruption, increased competition from alternative energy sources or commodity prices. Alternatively, a sustained decline in demand for such commodities could also adversely affect the financial performance of MLPs and other Midstream Energy Companies. Factors which could lead to a decline in demand include economic recession or other adverse economic conditions, higher fuel taxes or governmental regulations, increases in fuel economy, consumer shifts to the use of alternative fuel sources, changes in commodity prices, or weather.

Depletion and Exploration Risk. Many MLPs and other Midstream Energy Companies are either engaged in the production of natural gas, NGLs, crude oil, refined petroleum products or coal, or are engaged in transporting, storing, distributing and processing these items on behalf of shippers. To maintain or grow their revenues, these companies or their customers need to maintain or expand their reserves through exploration of new sources of supply, through the development of existing sources, through acquisitions, or through long-term contracts to acquire reserves. The financial performance of MLPs and other Midstream Energy Companies may be adversely affected if they, or the companies to whom they provide the service, are unable to cost-effectively acquire additional reserves sufficient to replace the natural decline.

Regulatory Risk. MLPs and other Midstream Energy Companies are subject to significant federal, state and local government regulation in virtually every aspect of their operations, including how facilities are constructed, maintained and operated, environmental and safety controls, and the prices they may charge for the products and services they provide. Various governmental authorities have the power to enforce compliance with these regulations and the permits issued under them, and violators are subject to administrative, civil and criminal penalties, including civil fines, injunctions or both. Stricter laws, regulations or enforcement policies could be enacted in the future which would likely increase compliance costs and may adversely affect the financial performance of MLPs and other Midstream Energy Companies.

Commodity Pricing Risk. The operations and financial performance of MLPs and other Midstream Energy Companies may be directly affected by energy commodity prices, especially those MLPs and other Midstream Energy Companies which own the underlying energy commodity. Commodity prices fluctuate for several reasons, including changes in market and economic conditions, the impact of weather on demand, levels of domestic production and imported commodities, energy conservation, domestic and foreign governmental regulation and taxation and the availability of local, intrastate and interstate transportation systems. Volatility of commodity prices, which may lead to a reduction in production or supply, may also negatively impact the performance of MLPs and other Midstream Energy Companies which are solely involved in the transportation, processing, storing, distribution or marketing of commodities. Volatility of commodity prices may also make it more difficult for MLPs and other Midstream Energy Companies to raise capital to the extent the market perceives that their performance may be directly or indirectly tied to commodity prices.

Acquisition Risk. The abilities of MLPs to grow and to increase distributions to unitholders can be highly dependent on their ability to make acquisitions that result in an increase in adjusted operating surplus per unit. In the event that MLPs are unable to make such accretive acquisitions because they are unable to identify attractive acquisition candidates, negotiate acceptable purchase contracts, because they are unable to raise financing for such acquisitions on economically acceptable terms, or because they are outbid by competitors, their future growth and ability to raise distributions will be limited. Furthermore, even if MLPs do consummate acquisitions that they believe will be accretive, the acquisitions may instead result in a decrease in adjusted operating surplus per unit. Any acquisition involves risks, including, among other things: mistaken assumptions about revenues and costs, including synergies; the assumption of unknown liabilities; limitations on rights to indemnity from the seller; the diversion of management's attention from other business concerns; unforeseen difficulties operating in new product or geographic areas; and customer or key employee losses at the acquired businesses.

Interest Rate Risk. Rising interest rates could adversely impact the financial performance of MLPs and other Midstream Energy Companies by increasing their costs of capital. This may reduce their ability to execute acquisitions or expansion projects in a cost-effective manner.

MLP valuations are based on numerous factors, including sector and business fundamentals, management expertise, and expectations of future operating results. However, MLP yields are also susceptible in the short-term to fluctuations in interest rates and, like treasury bonds, the prices of MLP securities typically increase when interest rates fall and decline when interest rates rise. Because we will principally invest in MLP equity securities, our investment in such securities means that the net asset value and market price of our common stock may decline if interest rates rise.

Affiliated Party Risk. Certain MLPs are dependent on their parents or sponsors for a majority of their revenues. Any failure by an MLP's parents or sponsors to satisfy their payments or obligations would impact the MLP's revenues and cash flows and ability to make distributions.

Catastrophe Risk. The operations of MLPs and other Midstream Energy Companies are subject to many hazards inherent in the transporting, processing, storing, distributing, mining or marketing of natural gas, NGLs, crude oil, coal, refined petroleum products or other hydrocarbons, or in the exploring, managing or producing of such commodities, including: damage to pipelines, storage tanks or related equipment and surrounding properties caused by hurricanes, tornadoes, floods, fires and other natural

disasters or by acts of terrorism; inadvertent damage from construction and farm equipment; leaks of natural gas, NGLs, crude oil, refined petroleum products or other hydrocarbons; fires and explosions. These risks could result in substantial losses due to personal injury or loss of life, severe damage to and destruction of property and equipment and pollution or other environmental damage and may result in the curtailment or suspension of their related operations. Not all MLPs and other Midstream Energy Companies are fully insured against all risks inherent to their businesses. If a significant accident or event occurs that is not fully insured, it could adversely affect their operations and financial condition.

Terrorism/Market Disruption Risk. The terrorist attacks in the United States on September 11, 2001 had a disruptive effect on the economy and the securities markets. United States military and related action in Iraq is ongoing and events in the Middle East could have significant adverse effects on the U.S. economy and the stock market. Uncertainty surrounding retaliatory military strikes or a sustained military campaign may affect MLP and other Midstream Energy Company operations in unpredictable ways, including disruptions of fuel supplies and markets, and transmission and distribution facilities could be direct targets, or indirect casualties, of an act of terror. The U.S. government has issued warnings that energy assets, specifically the United States' pipeline infrastructure, may be the future target of terrorist organizations. In addition, changes in the insurance markets have made certain types of insurance more difficult, if not impossible, to obtain and have generally resulted in increased premium costs.

MLP Risks. An investment in MLP units involves some risks which differ from an investment in the common stock of a corporation. Holders of MLP units have limited control and voting rights on matters affecting the partnership. In addition, there are certain tax risks associated with an investment in MLP units and conflicts of interest exist between common unit holders and the general partner, including those arising from incentive distribution payments.

MLPs and Other Midstream Energy Company Risk

MLPs and other Midstream Energy Companies are also subject to risks that are specific to the industry they serve.

MLPs and other Midstream Energy Companies that provide crude oil, refined product and natural gas services are subject to supply and demand fluctuations in the markets they serve which will be impacted by a wide range of factors, including fluctuating commodity prices, weather, increased conservation or use of alternative fuel sources, increased governmental or environmental regulation, depletion, rising interest rates, declines in domestic or foreign production, accidents or catastrophic events, and economic conditions, among others.

MLPs and other Midstream Energy Companies with propane assets are subject to earnings variability based upon weather conditions in the markets they serve, fluctuating commodity prices, increased use of alternative fuels, increased governmental or environmental regulation, and accidents or catastrophic events, among others.

MLPs and other Midstream Energy Companies with coal assets are subject to supply and demand fluctuations in the markets they serve, which will be impacted by a wide range of factors including, fluctuating commodity prices, the level of their customers' coal stockpiles, weather, increased conservation or use of alternative fuel sources, increased governmental or environmental regulation, depletion, rising interest rates, declines in domestic or foreign production, mining accidents or catastrophic events, health claims and economic conditions, among others.

Cash Flow Risk

A substantial portion of the cash flow received by us will be derived from our investment in equity securities of MLPs. The amount of cash that an MLP has available for distributions and the tax character of such distributions are dependent upon the amount of cash generated by the MLP's operations. Cash available for distribution will vary from quarter to quarter and is largely dependent on factors affecting the MLP's operations and factors affecting the energy industry in general. In addition to the risk factors

described above, other factors which may reduce the amount of cash an MLP has available for distribution include increased operating costs, maintenance capital expenditures, acquisition costs, expansion, construction or exploration costs and borrowing costs.

Tax Risks

Tax Risk of MLPs. Our ability to meet our investment objective will depend on the level of taxable income and distributions and dividends we receive from the MLP and other Midstream Energy Company securities in which we invest, a factor over which we have no control. The benefit we derive from our investment in MLPs is largely dependent on the MLPs being treated as partnerships for federal income tax purposes. As a partnership, an MLP has no tax liability at the entity level. If, as a result of a change in current law or a change in an MLP's business, an MLP were treated as a corporation for federal income tax purposes, such MLP would be obligated to pay federal income tax on its income at the corporate tax rate. If an MLP were classified as a corporation for federal income tax purposes, the amount of cash available for distribution would be reduced and distributions received by us would be taxed entirely as dividend income. Therefore, treatment of an MLP as a corporation for federal income tax purposes would result in a reduction in the after-tax return to us, likely causing a reduction in the value of our common stock.

Tax Law Change Risk. Changes in tax laws or regulations, or interpretations thereof in the future, could adversely affect us or the MLPs in which we invest. Any such changes could negatively impact our common stockholders. Legislation could also negatively impact the amount and tax characterization of dividends received by our common stockholders. Recently enacted legislation reduces the tax rate on qualified dividend income to the rate applicable to long-term capital gains, which is generally 15% for individuals, provided a holding period requirement and certain other requirements are met. This reduced rate of tax on dividends is currently scheduled to revert to ordinary income rates for taxable years beginning after December 31, 2008 and the 15% federal income tax rate for long-term capital gain is schedule to revert to 20% for such taxable years. In addition, legislation is currently being considered which would make MLP units eligible investments for regulated investment companies, which are investment companies that, unlike us, have elected to be subject to certain diversification rules and, as a result, are not generally subject to entity level taxation. If enacted, this legislation would put us at a competitive disadvantage to other funds that elect to be treated as regulated investment companies. In such event, we may elect to be treated as a regulated investment company. The cost or effect of such an election is uncertain at this time.

Deferred Tax Risks of MLPs. As a limited partner in the MLPs in which we invest, we will receive a pro rata share of income, gains, losses and deductions from those MLPs. Historically, a significant portion of income from such MLPs has been offset by tax deductions. We will incur a current tax liability on that portion of an MLP's income and gains that is not offset by tax deductions and losses. The percentage of an MLP's income and gains which is offset by tax deductions and losses will fluctuate over time for various reasons. A significant slowdown in acquisition activity by MLPs held in our portfolio could result in a reduction of accelerated depreciation generated by new acquisitions, which may result in increased current tax liability to us.

We will accrue deferred income taxes for our future tax liability associated with that portion of MLP distributions considered to be a tax-deferred return of capital as well as capital appreciation of our investments. Upon our sale of an MLP security, we may be liable for previously deferred taxes. We will rely to some extent on information provided by MLPs, which is not necessarily timely, to estimate deferred tax liability for purposes of financial statement reporting and determining our net asset value. From time to time we will modify our estimates or assumptions regarding our deferred tax liability as new information becomes available.

Deferred Tax Risks of Investing in our Common Stock. A reduction in the percentage of a distribution offset by tax deductions or an increase in our portfolio turnover will reduce that portion of our common stock dividend treated as a tax-deferred return of capital and increase that portion treated as

dividend income, resulting in lower after-tax dividends to our common stockholders. See the "Tax Matters" section at page 56 in this prospectus and also in our statement of additional information.

Delay in Use of Proceeds

Although we intend to invest the proceeds of this offering in accordance with our investment objective as soon as practicable, such investments, particularly those in privately placed securities, may be delayed if suitable investments are unavailable at the time or if we are unable to secure firm commitments for direct placements. We anticipate that our portfolio will be initially weighted toward publicly traded MLP securities pending the availability of suitable private investments. The trading market and volumes for MLP securities may at times be less liquid than the market for many other securities. As a result, it is not anticipated that we will be fully invested immediately after the completion of the offering and it may take a period of time before we are able to accumulate positions in certain securities. Prior to the time we are fully invested, the proceeds of the offering may temporarily be invested in cash, cash equivalents or other securities. Income received by us from these securities would likely be less than returns sought pursuant to our investment objective and policies and subject us to corporate tax before any dividends to common stockholders. For these reasons and because a significant portion of our initial distributions may consist of a return of capital, the return on our common stock in the first year of our investment operations is expected to be lower than when we are fully invested in accordance with our investment objective and policies. See "Use of Proceeds" at page 28.

Equity Securities Risk

MLP common units and other equity securities may be subject to general movements in the stock market, and a significant drop in the stock market may depress the price of securities to which we have exposure. MLP units and other equity securities prices fluctuate for several reasons, including changes in the financial condition of a particular issuer (generally measured in terms of distributable cash flow in the case of MLPs), investors' perceptions of MLPs and other Midstream Energy Companies, the general condition of the relevant stock market, or when political or economic events affecting the issuers occur. In addition, the prices of MLP units and other Midstream Energy Company equity securities may be sensitive to rising interest rates given their yield-based nature. Also, while not precise, the price of I-Shares and their volatility tend to correlate to the price of common units.

Certain of the MLPs and other Midstream Energy Companies in which we may invest may have comparatively smaller capitalizations than other companies. Investing in the securities of smaller MLPs and other Midstream Energy Companies presents some unique investment risks. These MLPs and other Midstream Energy Companies may have limited product lines and markets, as well as shorter operating histories, less experienced management and more limited financial resources than larger MLPs and other Midstream Energy Companies and may be more vulnerable to adverse general market or economic developments. Stocks of smaller MLPs and other Midstream Energy Companies may be less liquid than those of larger MLPs and other Midstream Energy Companies and may experience greater price fluctuations than larger MLPs and other Midstream Energy Companies. In addition, small-cap securities may not be widely followed by the investment community, which may result in reduced demand.

Market Discount From Net Asset Value Risk

Shares of closed-end investment companies frequently trade at discounts from their net asset values. This characteristic is a risk separate and distinct from the risk that our net asset value could decrease as a result of our investment activities and may be greater for investors expecting to sell their shares in a relatively short period following completion of this offering. The net asset value of our common stock will be reduced immediately following the offering as a result of the payment of certain offering costs. Although the value of our net assets is generally considered by market participants in determining whether to purchase or sell shares, whether investors will realize gains or losses upon the sale of our common stock will depend entirely upon whether the market price of our common stock at the time of sale is above or below the investor's purchase price for our common stock. Because the market price of our common stock

will be affected by factors such as net asset value, dividend or distribution levels (which are dependent, in part, on expenses), supply of and demand for our common stock, stability of dividends or distributions, trading volume of our common stock, general market and economic conditions, and other factors beyond the control of us, we cannot predict whether our common stock will trade at, below or above net asset value or at, below or above the initial public offering price.

Leverage Risk

Although our use of leverage may create an opportunity for increased returns for our common stock, it also results in additional risks and can magnify the effect of any losses. If the income and gains from the investments purchased with leverage, net of increased expenses associated with such leverage, do not cover the cost of such leverage, the return to our common stock will be less than if leverage had not been used. There is no assurance that a leveraging strategy will be used or will be successful. Leverage involves other risks and special considerations for common stockholders including: the likelihood of greater volatility of net asset value and market price of our common stock than a comparable portfolio without leverage; the risk of fluctuations in dividend rates or interest rates on Leverage Instruments; that the dividends paid on the preferred stock may reduce the returns to our common stockholders or result in fluctuations in the dividends paid on our common stock; the effect of leverage in a declining market, which is likely to cause a greater decline in the net asset value of our common stock than if we were not leveraged, which may result in a greater decline in the market price of our common stock; and when we use financial leverage, the investment management fee payable to Kayne Anderson may be higher than if we did not use leverage.

The funds borrowed pursuant to a leverage borrowing program (such as a credit line or commercial paper program), or obtained through the issuance of shares of preferred stock, constitute a substantial lien and burden by reason of their prior claim against our income and against our net assets in liquidation. The rights of lenders to receive payments of interest on and repayments of principal of any borrowings made by us under a leverage borrowing program are senior to the rights of holders of common stock and preferred stock, with respect to the payment of dividends or upon liquidation. We may not be permitted to declare dividends or other distributions, including dividends and distributions with respect to common stock or preferred stock or purchase common stock or preferred stock unless at such time, we meet certain asset coverage requirements and no event of default exists under any leverage borrowing program. In addition, we may not be permitted to pay dividends on common stock unless all dividends on the preferred stock and/or accrued interest on borrowings have been paid, or set aside for payment. In an event of default under a leverage borrowing program, the lenders have the right to cause a liquidation of collateral (*i.e.*, sell MLP units and other of our assets) and, if any such default is not cured, the lenders may be able to control the liquidation as well. Certain types of leverage may result in our being subject to covenants relating to asset coverage and our portfolio composition and may impose special restrictions on our use of various investment techniques or strategies or in our ability to pay dividends and other distributions on common stock in certain instances. We may be subject to certain restrictions on investments imposed by guidelines of one or more rating agencies, which may issue ratings for the preferred stock or other Leverage Instruments issued by us. These guidelines may impose asset coverage or portfolio composition requirements that are more stringent than those imposed by the 1940 Act. Kayne Anderson does not believe that these covenants or guidelines will impede it from managing our portfolio in accordance with our investment objective and policies.

While we may from time to time consider reducing leverage in response to actual or anticipated changes in interest rates in an effort to mitigate the increased volatility of current income and net asset value associated with leverage, there can be no assurance that we will actually reduce leverage in the future or that any reduction, if undertaken, will benefit our common stockholders. Changes in the future direction of interest rates are very difficult to predict accurately. If we were to reduce leverage based on a prediction about future changes to interest rates, and that prediction turned out to be incorrect, the reduction in leverage would likely operate to reduce the income and/or total returns to common stockholders relative to the circumstance if we had not reduced leverage. We may decide that this risk

outweighs the likelihood of achieving the desired reduction to volatility in income and the price of our common stock if the prediction were to turn out to be correct, and determine not to reduce leverage as described above.

Finally, the 1940 Act provides certain rights and protections for preferred stockholders which may adversely affect the interests of our common stockholders. See "Description of Capital Stock — Preferred Stock" at page 52.

Liquidity Risk

Although common units of MLPs and common stocks of other Midstream Energy Companies trade on the New York Stock Exchange ("NYSE"), American Stock Exchange ("AMEX"), and the NASDAQ Stock Market ("NASDAQ"), certain securities may trade less frequently, particularly those with smaller capitalizations. Securities with limited trading volumes may display volatile or erratic price movements. Also, Kayne Anderson expects to be one of the largest investors in our investment sector. Thus, it may be more difficult for us to buy and sell significant amounts of such securities without an unfavorable impact on prevailing market prices. Larger purchases or sales of these securities by us in a short period of time may cause abnormal movements in the market price of these securities. As a result, these securities may be difficult to dispose of at a fair price at the times when we believe it is desirable to do so. These securities are also more difficult to value, and Kayne Anderson's judgment as to value will often be given greater weight than market quotations, if any exist. Investment of our capital in securities that are less actively traded or over time experience decreased trading volume may restrict our ability to take advantage of other market opportunities.

We also expect to invest in unregistered or otherwise restricted securities. The term "restricted securities" refers to securities that are unregistered or are held by control persons of the issuer and securities that are subject to contractual restrictions on their resale. Unregistered securities are securities that cannot be sold publicly in the United States without registration under the Securities Act of 1933, as amended (the "Securities Act"), unless an exemption from such registration is available. Restricted securities may be more difficult to value and we may have difficulty disposing of such assets either in a timely manner or for a reasonable price. In order to dispose of an unregistered security, we, where we have contractual rights to do so, may have to cause such security to be registered. A considerable period may elapse between the time the decision is made to sell the security and the time the security is registered so that we could sell it. Contractual restrictions on the resale of securities vary in length and scope and are generally the result of a negotiation between the issuer and acquiror of the securities. We would, in either case, bear the risks of any downward price fluctuation during that period. The difficulties and delays associated with selling restricted securities could result in our inability to realize a favorable price upon disposition of such securities, and at times might make disposition of such securities impossible.

We expect our investments in restricted securities to include investments in private companies. These securities may not be registered under the Securities Act for sale by us until the company becomes a public company. Accordingly, in addition to the risks described above, our ability to dispose of such securities on favorable terms may be limited until the portfolio company becomes a public company.

Non-Diversification Risk

We are a non-diversified, closed-end investment company under the 1940 Act and will not be treated as a regulated investment company under the Internal Revenue Code. Accordingly, there are no regulatory requirements under the 1940 Act or the Internal Revenue Code on the minimum number or size of securities held by us.

Once we are fully invested in accordance with our investment objective, we intend to have invested 50% or more of our total assets in publicly traded securities of MLPs and other Midstream Energy Companies. There currently are fewer than 35 publicly traded MLPs which operate energy assets. We intend to select our investments in publicly traded securities from securities issued by MLPs in this small pool, together with securities issued by newly public MLPs, if any. We will also invest in publicly traded

securities issued by other Midstream Energy Companies. As a result of selecting our investments from this small pool of publicly traded securities, a change in the value of the securities of any one of these publicly traded MLPs could have a significant impact on our portfolio. In addition, as there can be a correlation in the valuation of the securities of publicly traded MLPs, a change in value of the securities of one such MLP could negatively influence the valuations of the securities of other publicly traded MLPs that we may hold in our portfolio.

As we may invest up to 15% of our total assets in any single issuer, a decline in value of the securities of such an issuer could significantly impact the value of our portfolio.

Valuation Risk

Market prices may not be readily available for subordinated units, direct ownership of general partner interests, restricted or unregistered securities of certain MLPs or interests in private companies, and the value of such investments will ordinarily be determined based on fair valuations determined by the Board of Directors or its designee pursuant to procedures adopted by the Board of Directors. Restrictions on resale or the absence of a liquid secondary market may adversely affect our ability to determine our net asset value. The sale price of securities that are not readily marketable may be lower or higher than our most recent determination of their fair value. Additionally, the value of these securities typically requires more reliance on the judgment of Kayne Anderson than that required for securities for which there is an active trading market. Due to the difficulty in valuing these securities and the absence of an active trading market for these investments, we may not be able to realize these securities' true value or may have to delay their sale in order to do so. In addition, we will rely to some extent on information provided by the MLPs, which may not necessarily be timely, to estimate taxable income allocable to the MLP units held in our portfolio and to estimate associated deferred tax liability for purposes of financial statement reporting and determining our net asset value. From time to time, we will modify our estimates or assumptions regarding our deferred tax liability as new information becomes available. To the extent we modify our estimates or assumptions, our net asset value would likely fluctuate. See "Net Asset Value" at page 49.

Interest Rate Risk

Interest rate risk is the risk that equity and debt securities will decline in value because of changes in market interest rates.

MLP valuations are based on numerous factors, including sector and business fundamentals, management expertise, and expectations of future operating results. However, MLP yields are also susceptible in the short-term to fluctuations in interest rates and, like treasury bonds, the prices of MLP securities typically increase when interest rates fall and decline when interest rates rise. Because we will principally invest in MLP equity securities, our investment in such securities means that the net asset value and market price of our common stock may decline if interest rates rise.

Certain debt instruments, particularly below investment grade securities, may contain call or redemption provisions which would allow the issuer thereof to prepay principal prior to the debt instrument's stated maturity. This is known as prepayment risk. Prepayment risk is greater during a falling interest rate environment as issuers can reduce their cost of capital by refinancing higher yielding debt instruments with lower yielding debt instruments. An issuer may also elect to refinance their debt instruments with lower yielding debt instruments if the credit standing of the issuer improves. To the extent debt securities in our portfolio are called or redeemed, we may be forced to reinvest in lower yielding securities.

Portfolio Turnover Risk

We anticipate that our annual portfolio turnover rate will be approximately 25%, but that rate may vary greatly from year to year. Portfolio turnover rate is not considered a limiting factor in Kayne Anderson's execution of investment decisions. The types of MLPs in which we intend to invest have

historically made cash distributions to limited partners, the substantial portion of which would not be taxed as income to us in that tax year but rather would be treated as a non-taxable return of capital to the extent of our basis. As a result, most of the tax related to such distribution would be deferred until subsequent sale of our MLP units, at which time we would pay any required tax on gains. Therefore, the sooner we sell such MLP units, the sooner we would be required to pay tax on resulting gains, and the cash available to us to pay dividends to our common stockholders in the year of such tax payment would be less than if such taxes were deferred until a later year. These taxable gains may increase our current and accumulated earnings and profits, resulting in a greater portion of our common stock dividends being treated as income to our common stockholders. In addition, a higher portfolio turnover rate results in correspondingly greater brokerage commissions and other transactional expenses that are borne by us. See "Kayne Anderson MLP Investment Company — Investment Practices — Portfolio Turnover" at page 39 and "Tax Matters" at page 56.

Derivatives Risk

We may purchase and sell derivative investments such as exchange-listed and over-the-counter put and call options on securities, equity, fixed income and interest rate indices, and other financial instruments, enter into various interest rate transactions such as swaps, caps, floors or collars or credit transactions and credit default swaps. We also may purchase derivative investments that combine features of these instruments. The use of derivatives has risks, including the imperfect correlation between the value of such instruments and the underlying assets, the possible default of the other party to the transaction or illiquidity of the derivative investments. Furthermore, the ability to successfully use these techniques depends on our ability to predict pertinent market movements, which cannot be assured. Thus, their use may result in losses greater than if they had not been used, may require us to sell or purchase portfolio securities at inopportune times or for prices other than current market values, may limit the amount of appreciation we can realize on an investment or may cause us to hold a security that we might otherwise sell. Additionally, amounts paid by us as premiums and cash or other assets held in margin accounts with respect to derivative transactions are not otherwise available to us for investment purposes.

Depending on whether we would be entitled to receive net payments from the counterparty on a swap or cap, which in turn would depend on the general state of short-term interest rates at that point in time, a default by a counterparty could negatively impact the performance of our common stock. In addition, at the time an interest rate or commodity swap or cap transaction reaches its scheduled termination date, there is a risk that we would not be able to obtain a replacement transaction or that the terms of the replacement would not be as favorable as on the expiring transaction. If this occurs, it could have a negative impact on the performance of our common stock. If we fail to maintain any required asset coverage ratios in connection with any use by us of Leverage Instruments, we may be required to redeem or prepay some or all of the Leverage Instruments. Such redemption or prepayment would likely result in our seeking to terminate early all or a portion of any swap or cap transactions. Early termination of a swap could result in a termination payment by or to us. Early termination of a cap could result in a termination payment to us.

We intend to segregate liquid assets against or otherwise cover our future obligations under such swap or cap transactions in order to provide that our future commitments for which we have not segregated liquid assets against or otherwise covered, together with any outstanding Leverage Instruments, will not exceed 30% of our total assets. In addition, such transactions and other use of Leverage Instruments by us will be subject to the asset coverage requirements of the 1940 Act, which generally restrict us from engaging in such transactions unless the value of our total assets less liabilities (other than the amount of such Leverage Instruments) is at least 300% of the principal amount of such Leverage Instruments. In other words, the principal amount of such Leverage Instruments may not exceed 33⅓% of our total assets.

The use of interest rate and commodity swaps and caps is a highly specialized activity that involves investment techniques and risks different from those associated with ordinary portfolio security transactions. Depending on market conditions in general, our use of swaps or caps could enhance or harm the overall performance of our common stock. For example, we may use interest rate swaps and caps in

connection with any use by us of Leverage Instruments. To the extent there is a decline in interest rates, the value of the interest rate swap or cap could decline, and could result in a decline in the net asset value of our common stock. In addition, if short-term interest rates are lower than our fixed rate of payment on the interest rate swap, the swap will reduce common stock net earnings. Buying interest rate caps could decrease the net earnings of our common stock in the event that the premium paid by us to the counterparty exceeds the additional amount we would have been required to pay had we not entered into the cap agreement.

Interest rate and commodity swaps and caps do not involve the delivery of securities or other underlying assets or principal. Accordingly, the risk of loss with respect to interest rate and commodity swaps is limited to the net amount of interest payments that we are contractually obligated to make. If the counterparty defaults, we would not be able to use the anticipated net receipts under the swap or cap to offset any declines in the value of our portfolio assets being hedged or the increase in our cost of financial leverage. Depending on whether we would be entitled to receive net payments from the counterparty on the swap or cap, which in turn would depend on the general state of the market rates at that point in time, such a default could negatively impact the performance of our common stock.

Short Sales Risk

Short selling involves selling securities which may or may not be owned and borrowing the same securities for delivery to the purchaser, with an obligation to replace the borrowed securities at a later date. Short selling allows the short seller to profit from declines in market prices to the extent such declines exceed the transaction costs and the costs of borrowing the securities. A short sale creates the risk of an unlimited loss, in that the price of the underlying security could theoretically increase without limit, thus increasing the cost of buying those securities to cover the short position. There can be no assurance that the securities necessary to cover a short position will be available for purchase. Purchasing securities to close out the short position can itself cause the price of the securities to rise further, thereby exacerbating the loss.

The Company's obligation to replace the borrowed security will be secured by collateral deposited with the broker-dealer, usually cash, U.S. government securities or other liquid securities similar to those borrowed. The Company also will be required to segregate similar collateral to the extent, if any, necessary so that the value of both collateral amounts in the aggregate is at all times equal to at least 100% of the current market value of the security sold short. Depending on arrangements made with the broker-dealer from which it borrowed the security regarding payment over of any payments received by the Company on such security, the Company may not receive any payments (including interest) on its collateral deposited with such broker-dealer.

Inflation Risk

Inflation risk is the risk that the value of assets or income from investment will be worth less in the future as inflation decreases the value of money. As inflation increases, the real value of our common stock and dividends can decline.

Below Investment Grade and Unrated Debt Securities Risk

Below investment grade debt securities in which we may invest are rated Ba1 or lower by Moody's Investors Service, Inc., BB+ or lower by Standard & Poor's, or comparably rated by another rating agency. Below investment grade and unrated debt securities generally pay a premium above the yields of U.S. government securities or debt securities of investment grade issuers because they are subject to greater risks than these securities. These risks, which reflect their speculative character, include the following: greater yield and price volatility; greater credit risk and risk of default; potentially greater sensitivity to general economic or industry conditions; potential lack of attractive resale opportunities (illiquidity); and additional expenses to seek recovery from issuers who default.

In addition, the prices of these below investment grade and unrated debt securities are more sensitive to negative developments, such as a decline in the issuer's revenues, downturns in profitability in the energy industry or a general economic downturn, than are the prices of higher grade securities. Below investment grade and unrated debt securities tend to be less liquid than investment grade securities and the market for below investment grade and unrated debt securities could contract further under adverse market or economic conditions. In such a scenario, it may be more difficult for us to sell these securities in a timely manner or for as high a price as could be realized if such securities were more widely traded. The market value of below investment grade and unrated debt securities may be more volatile than the market value of investment grade securities and generally tends to reflect the market's perception of the creditworthiness of the issuer and short-term market developments to a greater extent than investment grade securities, which primarily reflect fluctuations in general levels of interest rates. In the event of a default by a below investment grade or unrated debt security held in our portfolio in the payment of principal or interest, we may incur additional expense to the extent it is required to seek recovery of such principal or interest.

For a further description of below investment grade and unrated debt securities and the risks associated therewith, see "Investment Policies" in our statement of additional information. For a description of the ratings categories of certain rating agencies, see Appendix A to our statement of additional information.

Management Risk

Our portfolio is subject to management risk because it will be actively managed. Kayne Anderson will apply investment techniques and risk analyses in making investment decisions for us, but there can be no guarantee that they will produce the desired results.

Limited Experience Managing a Public Investment Company

Kayne Anderson and its senior management have limited experience managing a public investment company. Closed-end investment companies that are registered under the 1940 Act are subject to special restrictions and reporting requirements that do not apply to private funds. Kayne Anderson's limited experience in managing a portfolio of assets under such constraints may hinder its ability to take advantage of attractive investment opportunities and, as a result, achieve our investment objective. In addition, even though Kayne Anderson will be led by senior investment professionals who intend to apply the philosophy and techniques used by Kayne Anderson in its private fund investing, our investment strategies may differ from those of other private funds that are or have been managed by Kayne Anderson. We can offer no assurance that we will replicate Kayne Anderson's historical success, and we caution you that our investment returns could be substantially lower than the returns achieved by other Kayne Anderson funds.

Dependence on Key Personnel of Kayne Anderson

We are dependent upon Kayne Anderson's key personnel for our future success and upon their access to certain individuals and investments in the midstream energy industry. In particular, we will depend on the diligence, skill and network of business contacts of Messrs. Frey, Fleischer and McCarthy, who will evaluate, negotiate, structure, close and monitor our investments. These individuals do not have long-term employment contracts with Kayne Anderson, although they do have equity interests and other financial incentives to remain with Kayne Anderson. For a description of Kayne Anderson, see "Management — Investment Adviser" at page 45. We will also depend the senior management of Kayne Anderson. The departure of any of the professionals named above or the senior management of Kayne Anderson could have a material adverse effect on our ability to achieve our investment objective. In addition, we can offer no assurance that Kayne Anderson will remain our investment adviser or that we will continue to have access to Kayne Anderson's industry contacts and deal flow.

Conflicts of Interest of Kayne Anderson

Conflicts of interest may arise because Kayne Anderson and its affiliates generally will be carrying on substantial investment activities for other clients, in which we will have no interest. Kayne Anderson or its affiliates may have financial incentives to favor certain of such accounts over us. Any of their proprietary accounts and other customer accounts may compete with us for specific trades. Kayne Anderson or its affiliates may buy or sell securities for us which differ from securities bought or sold for other accounts and customers, even though their investment objectives and policies may be similar to ours. Situations may occur when we could be disadvantaged because of the investment activities conducted by Kayne Anderson and its affiliates for their other accounts. Such situations may be based on, among other things, legal or internal restrictions on the combined size of positions that may be taken for us and the other accounts, thereby limiting the size of our position, or the difficulty of liquidating an investment for us and the other accounts where the market cannot absorb the sale of the combined position.

Our investment opportunities may be limited by affiliations of Kayne Anderson or its affiliates with MLPs or other Midstream Energy Companies. Additionally, to the extent that Kayne Anderson sources and structures private investments in MLPs, certain employees of Kayne Anderson may become aware of actions planned by MLPs, such as acquisitions, that may not be announced to the public. It is possible that we could be precluded from investing in an MLP about which Kayne Anderson has material non-public information; however, it is Kayne Anderson's intention to ensure that any material non-public information available to certain Kayne Anderson employees not be shared with those employees responsible for the purchase and sale of publicly traded MLP securities.

Kayne Anderson manages several private investment funds ("Affiliated Funds"). Some of the Affiliated Funds have investment objectives that are similar to or overlap with ours. In particular, certain Affiliated Funds invest in MLPs and other Midstream Energy Companies. Further, Kayne Anderson may at some time in the future, manage other investment funds with the same investment objective as ours.

Kayne Anderson and its affiliates generally will be carrying on substantial investment activities for other clients, including Affiliated Funds, in which we will have no interest. Investment decisions for us are made independently from those of such other clients; however, from time to time, the same investment decision may be made for more than one fund or account. When two or more clients advised by Kayne Anderson or its affiliates seek to purchase or sell the same publicly traded securities, the securities actually purchased or sold will be allocated among the clients on a good faith equitable basis by Kayne Anderson in its discretion in accordance with the clients' various investment objectives and procedures adopted by Kayne Anderson and approved by our Board of Directors. In some cases, this system may adversely affect the price or size of the position we may obtain. In other cases, however, our ability to participate in volume transactions may produce better execution for us.

Under the 1940 Act, we and our affiliates, including Affiliated Funds, may be precluded from co-investing in private placements of securities. We and Kayne Anderson have applied to the SEC for exemptive relief to permit us to co-invest in Midstream Energy Company private placements with Affiliated Funds. If our application is granted, we may co-invest in such opportunities with Affiliated Funds on the basis of the suitability of and capital available for the investment, subject to certain conditions. We cannot assure you that the requested relief will be granted by the SEC. Unless and until we obtain an exemptive order, Kayne Anderson will not co-invest its other clients' assets in such private transactions in which we invest. However, during such period, we will not invest (and the Affiliated Funds will be able to invest) in private transactions (i) for which Kayne Anderson personnel (other than managers of our portfolio) have engaged in substantive negotiations prior to this offering or (ii) that relate to the general partner of Plains All-American Pipeline, L.P. (in which Affiliated Funds are already invested). Kayne Anderson believes that such allocation arrangements are fair to its clients and comply with its allocation procedures.

The investment management fee payable to Kayne Anderson is based on the value of our assets, as periodically determined. A significant percentage of our assets may be illiquid securities acquired in private transactions for which market quotations will not be readily available. Although we will adopt valuation

procedures designed to determine valuations of illiquid securities in a manner that reflects their fair value, there typically is a range of prices that may be established for each individual security. Senior management of Kayne Anderson, our Board of Directors and its Valuation Committee, and a third-party valuation firm will participate in the valuation of our securities. See "Net Asset Value" at page 49.

Certain Affiliations

We are affiliated with KA Associates, Inc., an NASD member broker-dealer. Absent an exemption from the SEC or other regulatory relief, we are generally precluded from effecting certain principal transactions with affiliated brokers, and our ability to utilize affiliated brokers for agency transactions is subject to restrictions. This could limit our ability to engage in securities transactions and take advantage of market opportunities. In addition, until completion of the initial public offering of our common stock, we will be precluded from effecting principal transactions with brokers who are members of the syndicate. KA Associates, Inc. is a member of the selling group for this offering. See "Underwriting" at page 60.

Anti-Takeover Provisions

Our Charter, Bylaws and the Maryland General Corporation Law include provisions that could limit the ability of other entities or persons to acquire control of us, to convert us to open-end status, or to change the composition of our Board of Directors. We have also adopted other measures that may make it difficult for a third party to obtain control of us, including provisions of our Charter classifying our Board of Directors in three classes serving staggered three-year terms, and provisions authorizing our Board of Directors to classify or reclassify shares of our stock in one or more classes or series, to cause the issuance of additional shares of our stock, and to amend our Charter, without stockholder approval, to increase or decrease the number of shares of stock that we have authority to issue. These provisions, as well as other provisions of our Charter and Bylaws, could have the effect of discouraging, delaying, deferring or preventing a transaction or a change in control that might otherwise be in the best interests of our stockholders. As a result, these provisions may deprive our common stockholders of opportunities to sell their common stock at a premium over the then current market price of our common stock. See "Description of Capital Stock" at page 52.

USE OF PROCEEDS

The net proceeds of the offering of our common stock will be approximately $710,754,200 ($817,629,200 if the underwriters exercise the over-allotment option in full) after payment of the estimated organizational costs of $150,000, the offering costs of $1,595,800 and the deduction of the underwriting discount. Our net asset value will be reduced immediately following the offering by the amount of the underwriting discount and organizational and offering expenses paid by us. We will invest the net proceeds of the offering in accordance with our investment objective and policies as stated in this prospectus.

We believe it will take us up to nine months to invest a substantial amount of our total assets in private investments. However, we anticipate that we will invest the majority of the net proceeds of the offering in public MLP and other Midstream Energy Company securities within three months, and may thereafter use financial leverage. Additionally, upon identifying appropriate private investments, we may sell some of our public securities or use leverage to provide funds for investment in those private opportunities. Pending investment in publicly traded securities, it is anticipated that the proceeds will be invested in cash or cash equivalents. Income received by us from these securities would subject us to corporate tax before any dividends to our common stockholders. As a result, the return on our common stock in the first year of our investment operations is expected to be lower than when we are fully invested in accordance with our investment objective and policies.

DIVIDENDS

We intend to pay quarterly dividends to our common stockholders funded by substantially all of our distributable cash flow. Our distributable cash flow is the amount received by us as cash or paid-in-kind distributions from MLPs or other Midstream Energy Companies, interest payments received on debt securities owned by us and other payments on securities owned by us, less current or anticipated operating expenses, current (but not deferred) taxes on our taxable income, and our leverage costs. We expect that a significant portion of our dividends will be made from sources other than our distributable cash flow, such as gains realized upon the sale of portfolio securities.

Our quarterly dividend will be authorized by our Board of Directors out of funds legally available therefor. We expect that we will declare and pay a dividend no later than January 31, 2005 (for the period from the closing of this offering to November 30, 2004). Our initial dividends may consist of a return of investors' capital and would be treated as such for federal income tax purposes. See "Tax Matters" at page 56. There is no assurance we will continue to pay regular dividends or that we will do so at a particular rate.

All of our realized capital gains, if any, net of applicable taxes, and any distributable cash flow not distributed as a dividend will be retained by us. Unless you elect to receive your common stock dividends in cash, they will automatically be reinvested into additional common stock pursuant to our Dividend Reinvestment Plan.

The 1940 Act generally limits our capital gain distributions to one per year, although under some circumstances Section 19(b) and Rule 19b-1 of the 1940 Act allow us up to three distributions per year that we may designate in whole or in part as capital gain distributions. We intend to apply to the SEC for an exemption from Section 19(b) of the 1940 Act and Rule 19b-1 thereunder permitting us to make periodic distributions of long-term capital gains provided that our distribution policy with respect to our common stock calls for periodic (*e.g.*, quarterly) distributions in an amount equal to a fixed percentage of our average net asset value over a specified period of time or market price per common share at or about the time of distribution or pay-out of a level dollar amount. The exemption also would permit us to make distributions with respect to any shares of preferred stock that we may issue in accordance with such shares' terms. We cannot assure you that the requested relief will be granted by the SEC.

KAYNE ANDERSON MLP INVESTMENT COMPANY

About Us

We are a newly organized, non-diversified, closed-end investment company registered under the 1940 Act, and formed as a Maryland corporation in June 2004. As a newly organized entity, we have no operating or public trading history. Our principal office is located at 1800 Avenue of the Stars, Second Floor, Los Angeles, California 90067, and our telephone number is (877) 657-3863/MLP-FUND.

Investment Objective and Policies

Our investment objective is to obtain high after-tax total return by investing at least 85% of our total assets in public and private investments in MLPs and other Midstream Energy Companies. Our investment objective is considered a fundamental policy and therefore may not be changed without the approval of the holders of a "majority of the outstanding" common stock. When used with respect to our common stock, a "majority of the outstanding" common stock means (i) 67% or more of the shares present at a meeting, if the holders of more than 50% of the shares are present or represented by proxy, or (ii) more than 50% of the shares, whichever is less. There can be no assurance that we will achieve our investment objective.

The following investment policies are considered non-fundamental and may be changed by the Board of Directors without the approval of the holders of a "majority of the outstanding" common stock, provided that common stockholders receive at least 60 days' prior written notice of any change:

- For as long as the word "MLP" is in our name, it shall be our policy, under normal market conditions, to invest at least 80% of our total assets in MLPs.
- We intend to invest at least 50% of our total assets in publicly traded securities of MLPs and other Midstream Energy Companies.
- We intend to invest up to 50% of our total assets in unregistered or otherwise restricted securities of MLPs and other Midstream Energy Companies. The types of unregistered or otherwise restricted securities that we may purchase include common units, subordinated units, preferred units, and convertible units of, and general partner interests in, MLPs, and securities of other public and private Midstream Energy Companies.
- We may invest up to 15% of our total assets in any single issuer.
- We may 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 least B3 by Moody's Investors Service, Inc. and at least B- by Standard & Poor's at the time of purchase, or comparably rated by another rating agency. 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.
- We may issue or use Leverage Instruments in an aggregate amount up to 30% of our total assets inclusive of such Leverage Instruments.
- We may, but are not required to, use derivative investments and engage in short sales to hedge against interest rate and market risks.

Unless otherwise stated, all investment restrictions apply at the time of purchase and we will not be required to reduce a position due solely to market value fluctuations. We may also, from time to time, invest in debt securities of MLPs and other Midstream Energy Companies with varying maturities of up to 30 years.

For a more complete discussion of our initial portfolio composition, see "Our Portfolio" at page 36.

We intend to pay current dividends to our common stockholders out of assets legally available therefor. Because many MLPs distribute cash in excess of the taxable income allocable to their investors (such as us), we believe that a significant portion of our income will be tax deferred, thereby maximizing cash available for dividends paid by us to our common stockholders.

About Kayne Anderson

Kayne Anderson Capital Advisors, L.P. will be our investment adviser, responsible for implementing and administering our investment strategy. The business of Kayne Anderson was begun in 1984 by its founders, Richard Kayne and John Anderson, with the same philosophy it follows today of investing for absolute returns (as opposed to relative performance against a benchmark index) on a risk-adjusted basis through a disciplined investment process. Its investment strategies seek to identify and exploit investment niches that it believes are less well understood and generally not followed by the broader investor community. As of July 31, 2004, Kayne Anderson managed approximately $1.4 billion in private equity and other alternative investments. Kayne Anderson has invested in MLPs and other Midstream Energy Companies since 1998 and currently manages more than $425 million in this sector. We believe that Kayne Anderson's knowledge of and relationships within the MLP market enables it to identify and take advantage of both public and private MLP investment opportunities.

Kayne Anderson's management of our portfolio will be led by three of its senior managing directors, J.C. Frey, David Fleischer and Kevin McCarthy, who together have more than 50 years of experience in the investment industry. Messrs. Frey and Fleischer will focus on our investments in publicly traded securities of MLPs and other Midstream Energy Companies. Mr. McCarthy, who will serve as our Chief Executive Officer with general oversight responsibility, will focus on our private investments.

Mr. Frey began investing in MLPs on behalf of Kayne Anderson in 1998 and has served as portfolio manager of Kayne Anderson's MLP funds since their inception in 2000. Mr. Fleischer joined Kayne Anderson in January 2004 from Goldman, Sachs & Co. where he was responsible for investment research of MLPs, natural gas companies and gas utilities, served on the firm's Investment Policy and Stock Selection Committee and was the business unit leader for the firm's energy research. Mr. McCarthy joined Kayne Anderson in June 2004 from UBS Securities LLC where he was global head of energy. In this role, he had senior responsibility for all of UBS' energy investment banking activities, including direct responsibility for securities underwriting and mergers and acquisitions in the MLP industry.

We will also draw on the experience and expertise of other senior professionals at Kayne Anderson, including its Chief Executive Officer Richard Kayne, and its Chief Investment Officer Robert V. Sinnott. Messrs. Kayne and Sinnott have approximately 70 years of combined investment experience and have been principally responsible for executing Kayne Anderson's energy industry investments in general, and its private investments in MLPs, in particular.

We believe that Kayne Anderson is particularly qualified and positioned both to identify appropriate publicly traded market MLP investment opportunities and to source and structure private investments in MLPs due to the following:

Management Expertise in Alternative Investing. Kayne Anderson has pursued alternative investment strategies for more than two decades. Kayne Anderson currently manages private equity and other alternative investments in public and private companies across 13 investment funds and a limited number of separate accounts.

Substantial MLP Market Knowledge and Industry Relationships. Through its activities as a leading investor in MLP securities, Kayne Anderson has developed a wide breadth of expertise and important relationships with industry managers in the MLP sector. We believe that Kayne Anderson's industry knowledge and relationships will enable us to capitalize on opportunities to source investments in MLPs that may not be readily available to other investors. Such investment opportunities are expected to include purchasing larger blocks of limited partner interests, often at discounts to market prices, non-controlling general partner interests and positions in companies expected to form an MLP. We also believe that

Kayne Anderson's substantial MLP market knowledge provides it with the ability to recognize long-term trends in the industry and to identify differences in value among individual MLPs, which we believe will benefit our portfolio of public investments in MLPs and other Midstream Energy Companies.

Extensive Transaction Structuring Expertise and Capability. Kayne Anderson has industry-leading experience structuring investments in MLP securities. This experience, combined with Kayne Anderson's ability to engage in regular dialogue with industry participants and other large holders of MLP securities to better understand the capital needs of prospective portfolio companies, gives it an advantage in structuring transactions mutually attractive to us and the portfolio company. Further, our ability to fund a meaningful amount of the capital needs of prospective portfolio companies provides us an advantage over other potential investors with less capital to employ in the sector. These investments may include subordinated units, restricted common units or general partner interests.

Ability to Trade Efficiently in a Relatively Illiquid Market. We believe that Kayne Anderson's ability to generate favorable returns on public investments in MLPs is aided by its substantial experience actively trading MLPs and similar securities. Through its affiliated broker-dealer, Kayne Anderson maintains its own trading desk, providing it with the ability to understand day-to-day market conditions for MLP securities, which have historically been characterized by lower daily trading volumes than comparable corporate equities. We believe that Kayne Anderson's direct equity market access enables it to make better informed investment decisions and to execute its investment strategy with greater efficiency and speed.

Investment Process

Kayne Anderson will seek to identify securities that offer a combination of quality, growth and yield intended to result in superior after-tax total returns over the long term. Kayne Anderson's securities selection process will include a comparison of quantitative, qualitative, and relative value factors that are developed through its proprietary analysis and valuation models. To determine whether an investment meets its criteria, Kayne Anderson generally will look for, among other things, a strong record of distribution or dividend growth, solid ratios of debt to equity and debt to cash flow, appropriate coverage ratios with respect to distributions to unit holders, attractive incentive distribution structures and a respected management team. Based on these and other considerations, Kayne Anderson will assess an issuer's future business prospects, strategy and expected financial performance in making an investment decision.

A portion of the publicly traded securities in our portfolio is expected to be comprised of a set of longer-term core holdings reflecting Kayne Anderson's views of issuer fundamentals based on the application of the selection process described above. The balance of the portfolio's publicly traded securities will consist of shorter-term investments reflecting Kayne Anderson's views of the anticipated impact of near-term catalysts such as pending equity issuances, pending announced acquisitions, rating agency actions, research analyst commentary and other issuer-specific developments.

Kayne Anderson will identify potential private investments through its dialogue with management teams, members of the financial community and energy industry participants with whom Kayne Anderson's investment professionals have long-term relationships. Kayne Anderson will pursue opportunities to make negotiated direct investments in issuers where its analysis indicates a need for additional capital. It will also seek opportunities to purchase outstanding securities on favorable terms from holders who have a desire but limited ability to monetize their holdings.

Market Opportunity

We will invest principally in MLPs. We believe that this strategy offers an opportunity for attractive risk-adjusted returns based on several characteristics of MLPs, including the following:

- ***MLPs provide steady distributions with attractive growth profiles.*** During the period January 1, 1998 through July 31, 2004, publicly-traded energy-related master limited partnerships provided an

average annual yield of 8.7%. Additionally, during that same time period, distributions from these master limited partnerships increased at a compounded average annual rate of 6.4%. Currently, these master limited partnerships provide a 7.5% average yield. This historical information is for the energy-related master limited partnerships that are currently traded publicly (fewer than 35), and is derived by us from financial industry databases and public filings. We believe that current market conditions are conducive for continued growth in distributions. However, there can be no assurance that these levels will be maintained in the future.

- ***MLPs operate strategically important assets that typically generate stable cash flows.*** MLPs operate in businesses that are necessary for providing consumers with access to energy resources. We believe that due to the fee-based nature and long-term importance of their midstream energy assets, MLPs typically generate stable cash flows throughout economic cycles. Additionally, certain businesses operated by MLPs are regulated by federal and state authorities that ensure that rates charged are fair and just. In most cases, such regulation provides for highly predictable cash flows.

- ***The midstream energy sector has high barriers to entry.*** Due to the high cost of constructing midstream energy assets and the difficulty of developing the expertise necessary to comply with the regulations governing the operation of such assets, the barriers to enter the midstream energy sector are high. Therefore, currently existing MLPs with large asset bases and significant operations enjoy a competitive advantage over other entities seeking to enter the sector.

- ***Due to a lack of broad institutional following and limited retail focus, the MLP market experiences inefficiencies which can be exploited by a knowledgeable investor.*** There are adverse consequences of MLP ownership for many institutional investors, including the generation of non-qualifying income for regulated investment companies (see "— Comparison with Direct Investments in MLPs" below). Further, because MLPs generate UBTI, they are typically not held by tax-exempt investors such as pension plans, endowments, employee benefit plans, or individual retirement accounts. Also, income and gains from MLPs are subject to FIRPTA, limiting the investment by non-U.S. investors in the sector. As a result, MLPs are held predominantly by taxable U.S. retail investors. Further, due to the limited public market float for MLP common units and tax-reporting burdens and complexities associated with MLP investments, MLPs appeal only to a segment of such retail investors. Due to this limited, retail-oriented focus, the market for MLPs can experience inefficiencies which can be exploited by a knowledgeable investor.

We believe that the attractive characteristics of MLPs are further supported by the positive dynamics currently affecting the midstream energy sector, including the following:

- ***MLPs are well-positioned to capitalize on the ongoing divestitures of midstream energy assets.*** As major oil and gas companies continue to focus on international opportunities and core exploration and production activities, such companies continue to sell many of their North American midstream energy assets. Additionally, certain utilities and energy merchants are selling their midstream energy assets, in part to improve their credit profiles. MLPs, as tax pass-through entities, have cost of capital advantages over corporate purchasers. As a result, MLPs have been active acquirors of midstream energy assets over the last several years. We believe this large pool of midstream energy assets should provide MLPs with significant acquisition opportunities to augment their internal growth prospects.

- ***Many MLPs have significant available capacity which allows them to benefit disproportionately from a growing economy.*** As the overall economy expands, energy demand increases and in certain cases, rates for assets owned by MLPs increase. Many of the MLPs in which we intend to invest have significant additional available operating capacity. As a result, these MLPs benefit from significant economies of scale and can expand production at relatively low cost levels. Small increases in energy demand can result in significant growth in the distributable cash flows for such MLPs. We believe this internal growth is an important component of MLPs' ability to increase distributions.

Comparison with Direct Investments in MLPs

We are intended to be an efficient vehicle for investing in a portfolio comprised principally of MLP equity securities. We believe that an investor in our common stock will benefit from our investment adviser's investment experience, market knowledge and relationships, as well as a number of portfolio and tax features that would not be available if such investor were to invest directly in MLPs, including some or all of the following:

- We provide, through a single investment vehicle, an investment in a portfolio of securities issued by MLPs and other Midstream Energy Companies.
- We intend to invest up to 50% of our total assets in private investments in MLPs and other Midstream Energy Companies. We believe that we can make private purchases of securities at discounts or with other beneficial terms. Such investment opportunities are typically only available to a limited number of knowledgeable investors with a large amount of capital available for investment in any particular security or issuer.
- Our common stockholders will receive a single tax reporting statement (on Form 1099) and will only be required to file income tax returns in states in which they would ordinarily file. In contrast, a person who invests directly in MLPs receives a statement of partnership items (on Schedule K-1) from each MLP owned and may be required to file income tax returns in each state in which such MLPs generate income.
- Our common stock dividends will be treated as qualifying income for each of our common stockholders that is an investment company (including mutual funds) that have elected to be taxed as regulated investment companies. In contrast, income received directly by such investment companies from MLPs is not currently treated as qualifying income by such investment companies. Subject to certain holding period requirements, corporate investors in our common stock generally will be entitled to dividends-received deduction treatment on our dividends.
- Our common stock dividends will generally be excluded from treatment as UBTI (except for those stockholders who debt-finance the purchase of our common stock). Accordingly, tax-exempt investors, including pension plans, employee benefit plans and individual retirement accounts, will not have UBTI upon receipt of dividends from us, whereas a tax-exempt limited partner's allocable share of income of an MLP is generally treated as UBTI.

Conversely, unlike MLPs, we will be obligated to pay federal and state tax with respect to our income, thereby subjecting our income to a double layer of taxation upon dividends to our taxpaying common stockholders. However, the types of MLPs in which we intend to invest have historically made cash distributions to limited partners that exceed the amount of taxable income allocable to limited partners, due to a variety of factors, including significant non-cash deductions, such as accelerated depreciation. If the cash distributions exceed the taxable income reported in a particular tax year, such excess cash distributions would not be taxed as income to us in that tax year but rather would be treated as a non-taxable return of capital to the extent of our basis, and our basis in our MLP units would be decreased by the amount of such excess, which would potentially increase our taxable gain upon any sale of our MLP units. For federal income tax purposes, unlike individuals, who are generally subject to a maximum long-term capital gains rate of 15% under current law, we will be taxed upon any recognized long-term capital gains at the same rate our ordinary income is taxed (generally 35%). See "Tax Matters" at page 56. Like other investment companies, our common stockholders will bear our operating costs, including management fees, custody and administration charges, and the costs of operating as an investment company.

Description of MLPs

Master Limited Partnerships. MLPs are limited partnerships, the partnership units of which are listed and traded on a U.S. securities exchange. To qualify as an MLP, a partnership must receive at least 90% of its income from qualifying sources as set forth in Section 7704(d) of the Internal Revenue Code.

These qualifying sources include natural resource-based activities such as the exploration, development, mining, production, processing, refining, transportation, storage and marketing of mineral or natural resources. MLPs generally have two classes of owners, the general partner and limited partners. The general partner is typically owned by a major energy company, an investment fund, the direct management of the MLP or is an entity owned by one or more of such parties. The general partner may be structured as a private or publicly traded corporation or other entity. The general partner typically controls the operations and management of the MLP through an up to 2% equity interest in the MLP plus, in many cases, ownership of common units and subordinated units. Limited partners own the remainder of the partnership, through ownership of common units, and have a limited role in the partnership's operations and management.

MLPs are typically structured such that common units and general partner interests have first priority to receive quarterly cash distributions up to an established minimum amount ("minimum quarterly distributions" or "MQD"). Common and general partner interests also accrue arrearages in distributions to the extent the MQD is not paid. Once common and general partner interests have been paid, subordinated units receive distributions of up to the MQD; however, subordinated units do not accrue arrearages. Distributable cash in excess of the MQD paid to both common and subordinated units is distributed to both common and subordinated units generally on a pro rata basis. The general partner is also eligible to receive incentive distributions if the general partner operates the business in a manner which results in distributions paid per common unit surpassing specified target levels. As the general partner increases cash distributions to the limited partners, the general partner receives an increasingly higher percentage of the incremental cash distributions. A common arrangement provides that the general partner can reach a tier where it receives 50% of every incremental dollar paid to common and subordinated unit holders. These incentive distributions encourage the general partner to streamline costs, increase capital expenditures and acquire assets in order to increase the partnership's cash flow and raise the quarterly cash distribution in order to reach higher tiers. Such results benefit all security holders of the MLP.

MLPs in which we will invest are currently classified by us as pipeline MLPs, propane MLPs and coal MLPs.

- Pipeline MLPs are engaged in (a) the treating, gathering, compression, processing, transmission and storage of natural gas and the transportation, fractionation and storage of NGLs (primarily propane, ethane, butane and natural gasoline); (b) the gathering, transportation, storage and terminalling of crude oil; and (c) the transportation (usually via pipelines, barges, rail cars and trucks), storage and terminalling of refined petroleum products (primarily gasoline, diesel fuel and jet fuel) and other hydrocarbon by-products. MLPs may also operate ancillary businesses including the marketing of the products and logistical services.

- Propane MLPs are engaged in the distribution of propane to homeowners for space and water heating and to commercial, industrial and agricultural customers. Propane serves approximately 3% of the household energy needs in the United States, largely for homes beyond the geographic reach of natural gas distribution pipelines. Volumes are weather dependent and a majority of annual cash flow is earned during the winter heating season (October through March).

- Coal MLPs are engaged in the owning, leasing, managing, production and sale of coal and coal reserves. Electricity generation is the primary use of coal in the United States. Demand for electricity and supply of alternative fuels to generators are the primary drivers of coal demand.

For purposes of our investment objective, the term "MLPs" includes affiliates of MLPs that own general partner interests or, in some cases, subordinated units, registered or unregistered common units, or other limited partner units in an MLP.

Our Portfolio

Our portfolio will be composed principally of the following investments. A description of our investment policies and restrictions and more information about our portfolio investments are contained in this prospectus and our statement of additional information.

Equity Securities of MLPs. The table below summarizes the features of equity securities of MLPs, including common units, subordinated units, I-Shares and general partner interests, and a further discussion of these securities follows:

	Common Units	Subordinated Units	I-Shares	General Partner Interests
Voting Rights	Limited to certain significant decisions; no annual election of directors	Same as common units	No direct MLP voting rights	Typically Board participation; votes on MLP operating strategy and direction
Distribution Priority	First right to minimum quarterly distribution ("MQD") specified in partnership agreement; arrearage rights	Second right to MQD; no arrearage rights	Equal in amount and priority to common units but paid in additional I-Shares at current market value of I-Shares	Same as common units; entitled to incentive distribution rights
Distribution Rate	Minimum as set in partnership agreement; participate pro rata with subordinated after MQDs are met	Equal in amount to common units; participate pro rata with common units above the MQD	Equal in amount to common units	Participate pro rata with common units and with subordinated units up to MQD; entitled to incentive distribution at target levels above MQD
Trading	Listed on NYSE, AMEX and NASDAQ	Typically not publicly traded	Listed on NYSE	Not publicly traded; can be owned by publicly traded entity
Taxes	Ordinary income to the extent of taxable income allocated to holder; non-taxable return of capital thereafter to extent of holder's basis; remainder as capital gain	Same as common units	Full distribution treated as return of capital; since distribution is in shares, total basis is not reduced	Ordinary income to extent that (1) taxable income is allocated to holder (including all incentive distributions) and (2) tax depreciation is insufficient to cover fair market value depreciation owed to limited partners
Investors	Primarily retail	Founders and sponsoring parent entities, corporate general partners of MLPs, entities that sell assets to MLPs, and investors such as us	Primarily institutional	Founders and sponsoring parent entities, corporate general partners of MLPs, entities that sell assets to MLPs, and investors such as us
Liquidation Priority	Intended to receive return of all capital first	Second right to return of capital; pro rata with common units thereafter	Same as common units (indirect right through I-Share issuer)	After payment of required amounts to limited partners
Conversion Rights	Not applicable	One-to-one ratio into common units	None	None

MLP common units represent a limited partnership interest in the MLP. Common units are listed and traded on U.S. securities exchanges or over-the-counter, with their value fluctuating predominantly based on prevailing market conditions and the success of the MLP. We intend to purchase common units in market transactions as well as directly from the MLP or other parties in private placements. Unlike owners of common stock of a corporation, owners of common units have limited voting rights and have no ability to annually elect directors. MLPs generally distribute all available cash flow (cash flow from operations less maintenance capital expenditures) in the form of quarterly distributions. Common units along with general partner units, have first priority to receive quarterly cash distributions up to the MQD and have arrearage rights. In the event of liquidation, common units have preference over subordinated units, but not debt or preferred units, to the remaining assets of the MLP.

MLP subordinated units are typically issued by MLPs to their original sponsors, such as their founders, corporate general partners of MLPs, entities that sell assets to the MLP, and investors such as us. We expect to purchase subordinated units directly from these persons as well as newly-issued subordinated units from MLPs themselves. Subordinated units have similar voting rights as common units and are generally not publicly traded. Once the MQD on the common units, including any arrearages, has been paid, subordinated units receive cash distributions up to the MQD prior to any incentive payments to the MLP's general partner. Unlike common units, subordinated units do not have arrearage rights. In the event of liquidation, common units and general partner interests have priority over subordinated units. Subordinated units are typically converted into common units on a one-to-one basis after certain time periods and/or performance targets have been satisfied. Subordinated units are generally valued based on the price of the common units, discounted to reflect the timing or likelihood of their conversion to common units.

MLP subordinated units in which we may invest generally convert to common units at a one-to-one ratio. The purchase or sale price of subordinated units is generally tied to the common unit price less a discount. The size of the discount varies depending on the likelihood of conversion, the length of time remaining to conversion, the size of the block purchased relative to trading volumes, and other factors, including smaller capitalization partnerships or companies potentially having limited product lines, markets or financial resources, lacking management depth or experience, and being more vulnerable to adverse general market or economic development than larger more established companies.

I-Shares represent an ownership interest issued by an affiliated party of an MLP. The MLP affiliate uses the proceeds from the sale of I-Shares to purchase limited partnership interests in the MLP in the form of i-units. I-units have similar features as MLP common units in terms of voting rights, liquidation preference and distributions. However, rather than receiving cash, the MLP affiliate receives additional i-units in an amount equal to the cash distributions received by MLP common units. Similarly, holders of I-Shares will receive additional I-Shares, in the same proportion as the MLP affiliates receipt of i-units, rather than cash distributions. I-Shares themselves have limited voting rights which are similar to those applicable to MLP common units. The MLP affiliate issuing the I-Shares is structured as a corporation for federal income tax purposes. I-Shares are traded on the NYSE.

General partner interests of MLPs are typically retained by an MLP's original sponsors, such as its founders, corporate partners, entities that sell assets to the MLP and investors such as us. A holder of general partner interests can be liable under certain circumstances for amounts greater than the amount of the holder's investment in the general partner interest. General partner interests often confer direct board participation rights and in many cases, operating control, over the MLP. These interests themselves are not publicly traded, although they may be owned by publicly traded entities. General partner interests receive cash distributions, typically 2% of the MLP's aggregate cash distributions, which are contractually defined in the partnership agreement. In addition, holders of general partner interests typically hold incentive distribution rights ("IDRs"), which provide them with a larger share of the aggregate MLP cash distributions as the distributions to limited partner unit holders are increased to prescribed levels. General partner interests generally cannot be converted into common units. The general partner interest can be redeemed by the MLP if the MLP unitholders choose to remove the general partner, typically with a supermajority vote by limited partner unitholders.

Equity Securities of Publicly Traded Midstream Energy Companies. Equity securities of publicly traded Midstream Energy Companies consist of common equity, preferred equity and other securities convertible into equity securities of such companies. Holders of common stock are typically entitled to one vote per share on all matters to be voted on by stockholders. Holders of preferred equity can be entitled to a wide range of voting and other rights, depending on the structure of each separate security. Securities convertible into equity securities of Midstream Energy Companies generally convert according to set ratios into common stock and are, like preferred equity, entitled to a wide range of voting and other rights. We intend to invest in equity securities of publicly traded Midstream Energy Companies primarily through market transactions. We intend to invest in securities of MLP affiliates as part of our investment in Midstream Energy Companies. MLP affiliates include entities that own general partner interests or, in some cases, subordinated units, registered or unregistered common units or other limited partner interests in an MLP.

Securities of Private Companies. Our investments in the debt or equity securities of private companies operating midstream energy assets will typically be made with the expectation that such assets will be contributed to a newly-formed MLP or sold to or merged with, an existing MLP within approximately one to two years.

Debt Securities. The debt securities in which we may invest may provide for fixed or variable principal payments and various types of interest rate and reset terms, including fixed rate, adjustable rate, zero coupon, contingent, deferred, payment-in-kind and auction rate features. Certain debt securities are "perpetual" in that they have no maturity date. Certain debt securities are zero coupon bonds. A zero coupon bond is a bond that does not pay interest either for the entire life of the obligations or for an initial period after the issuance of the obligation. To the extent that we invest in below investment grade or unrated debt securities, such securities will be rated, at the time of investment, at least B- by Standard & Poor's or B3 by Moody's Investors Service, Inc. or a comparable rating by at least one other rating agency or, if unrated, determined by Kayne Anderson to be of comparable quality. If a security satisfies our minimum rating criteria at the time of purchase and is subsequently downgraded below such rating, we will not be required to dispose of such security.

Because the risk of default is higher for below investment grade and unrated debt securities than for investment grade securities, Kayne Anderson's research and credit analysis is a particularly important part of managing securities of this type. Kayne Anderson will attempt to identify those issuers of below investment grade and unrated debt securities whose financial condition Kayne Anderson believes is sufficient to meet future obligations or has improved or is expected to improve in the future. Kayne Anderson's analysis focuses on relative values based on such factors as interest or dividend coverage, asset coverage, operating history, financial resources, earnings prospects and the experience and managerial strength of the issuer.

Temporary Defensive Position. During periods in which Kayne Anderson determines that it is temporarily unable to follow our investment strategy or that it is impractical to do so, we may deviate from our investment strategy and invest all or any portion of our net assets in cash or cash equivalents. Kayne Anderson's determination that it is temporarily unable to follow our investment strategy or that it is impractical to do so will generally occur only in situations in which a market disruption event has occurred and where trading in the securities selected through application of our investment strategy is extremely limited or absent. In such a case, our shares may be adversely affected and we may not pursue or achieve our investment objective.

Investment Practices

Hedging and Other Risk Management Transactions. We may, but are not required to, use various hedging and other risk management transactions to seek to manage interest rate and market risks.

We may purchase and sell derivative investments such as exchange-listed and over-the-counter put and call options on securities, equity, fixed income and interest rate indices, and other financial instruments, and enter into various interest rate transactions, such as swaps, caps, floors or collars, or credit

transactions and credit default swaps. We also may purchase derivative investments that combine features of these instruments. We generally seek to use these instruments as hedging strategies to seek to manage our effective interest rate exposure, including the effective yield paid on any Leverage Instruments issued or used by us, protect against possible adverse changes in the market value of securities held in or to be purchased for our portfolio, or otherwise protect the value of our portfolio. See "Risk Factors — Derivatives Risk" at page 23 in the prospectus and "Investment Policies" in our statement of additional information for a more complete discussion of these transactions and their risks.

We may also short sell Treasury securities to hedge our interest rate exposure. When shorting Treasury securities, the loss is limited to the principal amount that is contractually required to be repaid at maturity and the interest expense that must be paid at the specified times. See "Risk Factors — Short Sales Risk" at page 24.

Use of Arbitrage and Other Strategies. We may use various arbitrage and option strategies to try to generate additional return. As part of such strategies, we may engage in paired long-short trades to arbitrage pricing disparities in securities issued by MLPs or between MLPs and their affiliates; write (or sell) covered call options on the securities of MLPs or other securities held in our portfolio; or, purchase call options or enter into swap contracts to increase our exposure to MLPs or sell securities short. Paired trading consists of taking a long position in one security and concurrently taking a short position in another security within the same company. With a long position, we purchase a stock outright; whereas with a short position, we would sell a security that we do not own and must borrow to meet our settlement obligations. We will realize a profit or incur a loss from a short position depending on whether the value of the underlying stock decreases or increases, respectively, between the time the stock is sold and when we replace the borrowed security. See "Risk Factors — Short Sales Risk" at page 24. We may write (or sell) covered call options on the securities of MLPs or other securities held in our portfolio. We will not write uncovered calls. To increase our exposure to certain issuers, we may purchase call options or use swap agreements. We do not anticipate that these strategies will comprise a substantial portion of our investments. See "Risk Factors — Derivatives Risk" at page 23.

We may engage in short sales. Our use of "naked" short sales of equity securities (*i.e.,* where we have no opposing long position in the securities of the same issuer) will be limited, so that, (i) measured on a daily basis, the market value of all such short sale positions does not exceed 10% of our total assets, and (ii) at the time of entering into any such short sales, the market value of all such short sale positions immediately following such transaction shall not exceed 5% of our total assets. See "Risk Factors — Short Sales Risk" at page 24.

Portfolio Turnover. We anticipate that our annual portfolio turnover rate will be approximately 25%, but that rate may vary greatly from year to year. Portfolio turnover rate is not considered a limiting factor in Kayne Anderson's execution of investment decisions. The types of MLPs in which we intend to invest historically have made cash distributions to limited partners that would not be taxed as income to us in that tax year but rather would be treated as a non-taxable return of capital to the extent of our basis. As a result, the tax related to such distribution would be deferred until subsequent sale of our MLP units, at which time we would pay any required tax on capital gain. Therefore, the sooner we sell such MLP units, the sooner we would be required to pay tax on resulting capital gains, and the cash available to us to pay dividends to our common stockholders in the year of such tax payment would be less than if such taxes were deferred until a later year. In addition, the greater the number of such MLP units that we sell in any year, *i.e.*, the higher our turnover rate, the greater our potential tax liability for that year. These taxable gains may increase our current and accumulated earnings and profits, resulting in a greater portion of our common stock dividends being treated as income to our common stockholders. In addition, a higher portfolio turnover rate results in correspondingly greater brokerage commissions and other transactional expenses that are borne by us. See "Tax Matters" at page 56.

USE OF FINANCIAL LEVERAGE

We generally will seek to enhance our total return through the use of financial leverage, which may include the use or issuance of Leverage Instruments in an aggregate amount of up to 30% of our total assets after such use or issuance. Leverage creates a greater risk of loss, as well as potential for more gain, for our common stock than if leverage is not used. The Leverage Instruments would have complete priority upon distribution of assets over common stock. Depending on the type of Leverage Instruments involved, our use of financial leverage may require the approval of our Board of Directors. We expect to invest the net proceeds derived from any use or issuance of Leverage Instruments according to the investment objective and policies described in this prospectus. If shares of preferred stock are issued they would pay adjustable rate dividends based on shorter-term interest rates, which would be redetermined periodically by an auction process. The adjustment period for preferred stock dividends could be as short as one day or as long as a year or more. So long as our portfolio is invested in securities that provide a higher rate of return than the dividend rate or interest rate of the Leverage Instrument after taking our related expenses into consideration, the leverage will cause our common stockholders to receive a higher rate of income than if we were not leveraged. We do not intend to use Leverage Instruments until the proceeds of this offering are substantially invested in accordance with our investment objective.

Leverage creates risk for holders of our common stock, including the likelihood of greater volatility of net asset value and market price of the shares, and the risk of fluctuations in dividend rates or interest rates on Leverage Instruments which may affect the return to the holders of our common stock or will result in fluctuations in the dividends paid by us on our common stock. To the extent the return on securities purchased with funds received from the use of leverage exceeds the cost of leverage (including increased expenses to us), our total return will be greater than if leverage had not been used. Conversely, if the return derived from such securities is less than the cost of leverage (including increased expenses to us), our total return will be less than if leverage had not been used, and therefore, the amount available for distribution to our common stockholders will be reduced. In the latter case, Kayne Anderson in its best judgment nevertheless may determine to maintain our leveraged position if it expects that the benefits to our common stockholders of so doing will outweigh the current reduced return. Under normal market conditions, we anticipate that we will be able to invest the proceeds from leverage at a higher rate than the costs of leverage (including increased expenses to us), which would enhance returns to our common stockholders. The fees paid to Kayne Anderson will be calculated on the basis of our total assets including proceeds from Leverage Instruments. During periods in which we use financial leverage, the investment management fee payable to Kayne Anderson may be higher than if we did not use a leveraged capital structure. Consequently, we and Kayne Anderson may have differing interests in determining whether to leverage our assets. The Board of Directors will monitor our use of leverage and this potential conflict. The use of leverage creates risks and involves special considerations. See "Risk Factors — Leverage Risk" at page 20.

The Maryland General Corporation Law authorizes us, without prior approval of our common stockholders, to borrow money. In this regard, we may issue notes or other evidence of indebtedness (including bank borrowings or commercial paper) and may secure any such borrowings by mortgaging, pledging or otherwise subjecting as security our assets. In connection with such borrowing, we may be required to maintain minimum average balances with the lender or to pay a commitment or other fee to maintain a line of credit. Any such requirements will increase the cost of borrowing over the stated interest rate. Under the requirements of the 1940 Act, we, immediately after any such borrowings, must have an "asset coverage" of at least 300% (33⅓% of our total assets after borrowings). With respect to such borrowing, asset coverage means the ratio which the value of our total assets, less all liabilities and indebtedness not represented by senior securities (as defined in the 1940 Act), bears to the aggregate amount of such borrowing represented by senior securities issued by us.

The rights of our lenders to receive interest on and repayment of principal of any such borrowings will be senior to those of our common stockholders, and the terms of any such borrowings may contain provisions which limit certain of our activities, including the payment of dividends to our common stockholders in certain circumstances. Under the 1940 Act, we may not declare any dividend or other

distribution on any class of our capital stock, or purchase any such capital stock, unless our aggregate indebtedness has, at the time of the declaration of any such dividend or distribution, or at the time of any such purchase, an asset coverage of at least 300% after declaring the amount of such dividend, distribution or purchase price, as the case may be. Further, the 1940 Act does (in certain circumstances) grant our lenders certain voting rights in the event of default in the payment of interest on or repayment of principal. In the event that we elect to be treated as a regulated investment company, such provisions would impair our status as a regulated investment company under the Internal Revenue Code. Subject to our ability to liquidate our relatively illiquid portfolio, we intend to repay the borrowings. Any borrowing will likely be ranked senior or equal to all of our other existing and future borrowings.

Certain types of borrowings may result in us being subject to covenants in credit agreements relating to asset coverage and portfolio composition requirements. We may be subject to certain restrictions on investments imposed by guidelines of one or more rating agencies, which may issue ratings for the Leverage Instruments issued by us. These guidelines may impose asset coverage or portfolio composition requirements that are more stringent than those imposed by the 1940 Act. It is not anticipated that these covenants or guidelines will impede Kayne Anderson from managing our portfolio in accordance with our investment objective and policies.

Under the 1940 Act, we are not permitted to issue preferred stock unless immediately after such issuance the value of our total assets is at least 200% of the liquidation value of the outstanding preferred stock (*i.e.*, the liquidation value may not exceed 50% of our total assets). In addition, we are not permitted to declare any cash dividend or other distribution on our common stock unless, at the time of such declaration, the value of our total assets is at least 200% of such liquidation value. If we issue preferred stock, we intend, to the extent possible, to purchase or redeem it from time to time to the extent necessary in order to maintain asset coverage on such preferred stock of at least 200%. In addition, as a condition to obtaining ratings on the preferred stock, the terms of any preferred stock issued are expected to include asset coverage maintenance provisions which will require the redemption of the preferred stock in the event of non-compliance by us and may also prohibit dividends and other distributions on our common stock in such circumstances. In order to meet redemption requirements, we may have to liquidate portfolio securities. Such liquidations and redemptions would cause us to incur related transaction costs and could result in capital losses to us. If we have preferred stock outstanding, two of our Directors will be elected by the holders of preferred stock as a class. Our remaining Directors will be elected by holders of our common stock and preferred stock voting together as a single class. In the event we fail to pay dividends on our preferred stock for two years, holders of preferred stock would be entitled to elect a majority of our Directors.

We may also borrow money as a temporary measure for extraordinary or emergency purposes, including the payment of dividends and the settlement of securities transactions which otherwise might require untimely dispositions of our securities. See "Kayne Anderson MLP Investment Company — Our Portfolio — Temporary Defensive Position" at page 38.

Effects of Leverage

Assuming that the Leverage Instruments will represent approximately 30% of our total assets and we will pay dividends or interest on such Leverage Instruments at an annual combined average rate of 2.50%, the income generated by our portfolio (net of our estimated related expenses) must exceed 0.75% in order to cover such payments. These numbers are merely estimates used for illustration; actual dividend or interest rates on the Leverage Instruments will vary frequently and may be significantly higher or lower than the rate estimated above.

The following table is furnished in response to requirements of the SEC. It is designed to illustrate the effect of leverage on common stock total return, assuming investment portfolio total returns (comprised of income and changes in the value of securities held in our portfolio) of minus 10% to plus 10%. These assumed investment portfolio returns are hypothetical figures and are not necessarily indicative

of the investment portfolio returns experienced or expected to be experienced by us. See "Risk Factors" at page 15.

The table further reflects the issuance of Leverage Instruments representing 30% of our total assets, net of expenses, and our currently projected annual Leverage Instrument rate of 2.50%.

Assumed Portfolio Total Return (Net of Expenses)	(10)%	(5)%	0%	5%	10%
Common Stock Total Return	(15.4)%	(8.2)%	(1.1)%	6.1%	13.2%

Common stock total return is composed of two elements: common stock dividends paid by us (the amount of which is largely determined by our net investment income after paying dividends or interest on our Leverage Instruments) and gains or losses on the value of the securities we own. As required by SEC rules, the table above assumes that we are more likely to suffer capital losses than to enjoy capital appreciation. For example, to assume a total return of 0% we must assume that the distributions we receive on our investments is entirely offset by losses in the value of those securities.

MANAGEMENT

Directors and Officers

Our business and affairs will be managed under the direction of our Board of Directors, including supervision of the duties performed by Kayne Anderson. Our Board currently consists of five Directors. As indicated, a majority of our Board consists of Directors that are not "interested persons" of us as defined in Section 2(a)(19) of the 1940 Act. We refer to these individuals as our "independent Directors". The Board of Directors elects our officers, who will serve at the Board's discretion. The following table includes information regarding our Directors and officers, and their principal occupations and other affiliations during the past five years. The address for all Directors and officers is 1800 Avenue of the Stars, Second Floor, Los Angeles, CA 90067. We are the only investment company in the Kayne Anderson fund complex that is overseen by the Directors.

Name (Year Born)	Position(s) Held with Registrant	Term of Office/ Time of Service	Principal Occupations During Past Five Years	Other Directorships Held by Director/Officer
Independent Directors				
Anne K. Costin* .... (born 1950)	Director	3-year term/ served since July, 2004	Ms. Costin is currently an Adjunct Professor in the Finance and Economics Department of Columbia University Graduate School of Business in New York City. Ms. Costin had a 27-year career at Citigroup, and during the last five years she held the position of Managing Director and Global Deputy Head of the Project & Structured Trade Finance product group within Citigroup's Investment Banking Division, Citigroup Global Markets Inc.	None.
Steven C. Good ..... (born 1942)	Director	2-year term/ served since July, 2004	Mr. Good is a senior partner at Good Swartz Brown & Berns LLP, which offers accounting, tax and business advisory services to middle market private and publicly-traded companies, their owners and their management. Mr. Good founded Block, Good and Gagerman in 1976, which later evolved in stages into Good Swartz Brown & Berns LLP.	Arden Realty, Inc.; OSI Systems, Inc.; and Big Dog Holdings, Inc.
Terry Quinn .... (born 1951)	Director	3-year term/ served since July, 2004	Mr. Quinn is Chairman and CEO of Total Capital Corp., a start-up specialty commercial finance company. From 2000 to 2003, Mr. Quinn was a co-founder and managing partner of MTS Health Partners, a private merchant bank providing services to publicly traded and privately held small to mid-sized companies in the healthcare industry. Prior to that, Mr. Quinn was a director and vice chairman of The Park Associates, Inc., a privately owned nursing home company chain.	NMC, Inc., a privately held long-term care chain with nursing homes in New York, Indiana and Arkansas.

Name (Year Born)	Position(s) Held with Registrant	Term of Office/ Time of Service	Principal Occupations During Past Five Years	Other Directorships Held by Director/Officer
Michael B. Targoff . . . (born 1944)	Director	1-year term/ served since July, 2004	Mr. Targoff is a founder of Michael B. Targoff and Co., which was started in 1998 to seek active or controlling investments in telecommunications and related industries. From January 1996 through January 1998, Mr. Targoff was President and Chief Operating Officer of Loral Space and Communications Ltd.	Communication Power Industries; ViaSat; Infocrossing; Celeritek; and Leap Wireless International.
Interested Director and Officers				
Kevin McCarthy** . . (born 1959)	Chairman of the Board of Directors; President and Chief Executive Officer	2-year term as a Director, elected annually as an officer/ served since July, 2004	Mr. McCarthy has served as a Senior Managing Director of Kayne Anderson since June 2004. Prior to that, Mr. McCarthy was at UBS Securities LLC where he was Global Head of Energy. In this role, he had senior responsibility for all of UBS' energy investment banking activities, including direct responsibility for securities underwriting and mergers and acquisitions in the MLP industry. From 1995 to 2000, Mr. McCarthy led the energy investment banking activities of Dean Witter Reynolds and then PaineWebber Incorporated.	None.
Ralph Walter	Chief Financial Officer	Elected annually/ served since July, 2004	Mr. Walter has served as the Chief Operating Officer and Treasurer of Kayne Anderson since 2000. Before joining Kayne Anderson, he was the Chief Administrative Officer at ABN AMRO Inc., the U.S.-based, investment-banking arm of ABN-AMRO Bank.	Knox College
David Shladovsky	Secretary	Elected annually/ served since inception	Mr. Shladovsky has served as a Managing Director and General Counsel of Kayne Anderson since 1997.	None.

* Solely as a result of her relationship with one of the underwriters in this offering, Ms. Costin is an "interested person" of Kayne Anderson MLP Investment Company as defined in the 1940 Act until six months after the completion of this offering.

** Mr. McCarthy is an "interested person" of Kayne Anderson MLP Investment Company by virtue of his employment relationship with Kayne Anderson, our investment adviser.

Under our Charter, our Directors are divided into three classes. Each class of Directors will hold office for a three year term. However, the initial directors of the three classes have initial terms of one, two and three years, respectively, and the initial directors will hold office until their successors are duly elected and qualify. At each annual meeting of our stockholders, the successors to the class of Directors whose terms expire at such meeting will be elected to hold office for a term expiring at the annual meeting of stockholders held in the third year following the year of their election. Each Director will hold office for the term to which he or she is elected and until his or her successor is duly elected and qualifies.

Additional information regarding our Board and its committees, is set forth under "Management" in our statement of additional information.

Investment Adviser

Kayne Anderson is our investment adviser. Kayne Anderson is also responsible for managing our business affairs and providing certain clerical, bookkeeping and other administrative services. Kayne Anderson is a California limited partnership and an investment adviser registered with the SEC under the Investment Advisers Act of 1940, as amended. Kayne Anderson has one general partner, Kayne Anderson Investment Management, Inc., and a number of individual limited partners. Kayne Anderson Investment Management, Inc. is a Nevada corporation controlled by Richard A. Kayne and John E. Anderson. Kayne Anderson's predecessor was established as an independent investment advisory firm in 1984. It has invested in MLPs since 1998.

Kayne Anderson's management of our portfolio will be led by three of its senior managing directors, J.C. Frey, David Fleischer and Kevin McCarthy. We will also draw on the experience and expertise of other professionals at Kayne Anderson, including its Chief Executive Officer, Richard Kayne, and its Chief Investment Officer, Robert V. Sinnott, as well as Richard J. Farber and Stephen Smith.

J.C. Frey is a Senior Managing Director of Kayne Anderson. He serves as portfolio manager of Kayne Anderson's funds investing in MLP securities. Mr. Frey began investing in MLPs on behalf of Kayne Anderson in 1998 and has served as portfolio manager of Kayne Anderson's MLP funds since their inception in 2000. Prior to joining Kayne Anderson in 1997, Mr. Frey was a CPA and audit manager in KPMG Peat Marwick's financial services group, specializing in banking and finance clients, and loan securitizations. Mr. Frey graduated from Loyola Marymount University with a BS degree in Accounting in 1990. In 1991, he received a Master's degree in Taxation from the University of Southern California.

David Fleischer is a Senior Managing Director of Kayne Anderson, providing analytical support in the areas of MLPs and other Midstream Energy Company investments. Mr. Fleischer joined Kayne Anderson from Goldman, Sachs & Co. in January 2004. As a former managing director of Goldman Sachs, Mr. Fleischer served on its Investment Policy and Stock Selection Committees for 10 years and was the business unit leader for the firm's energy research. He was responsible for investment research of MLPs, natural gas companies and gas utilities. During that time period, Mr. Fleischer was consistently ranked as one of Wall Street's top natural gas analysts by *Institutional Investor* magazine. Mr. Fleischer was with Goldman Sachs from 1992 to 2003. Prior thereto, he was an analyst with Prudential Securities, Sanford C. Bernstein & Co. and Morgan Guaranty Trust Company between 1976 and 1992. He graduated from the University of Pennsylvania with a BA degree in Economics in 1970 and an MBA degree in Finance in 1976. Mr. Fleischer was a commissioned officer in the U.S. Navy from 1970 to 1974, where he attained the rank of Lieutenant Commander. He is a Chartered Financial Analyst.

Kevin McCarthy will serve as our Chief Executive Officer. He is also a Senior Managing Director of Kayne Anderson. Mr. McCarthy joined Kayne Anderson in June 2004 from UBS Securities LLC where he was global head of energy. In this role, he had senior responsibility for all of UBS' energy investment banking activities, including direct responsibility for securities underwriting and mergers and acquisitions in the MLP industry. Mr. McCarthy was with UBS Securities from 2000 to 2004. From 1995 to 2000, Mr. McCarthy led the energy investment banking activities of Dean Witter Reynolds and then PaineWebber Incorporated. He began his investment banking career in 1984. He earned a BA degree in Economics and Geology from Amherst College in 1981, and an MBA degree in Finance from the University of Pennsylvania's Wharton School in 1984.

Richard A. Kayne is Chief Executive Officer of Kayne Anderson, its affiliated investment adviser, Kayne Anderson Rudnick Investment Management, LLC, and its affiliated broker-dealer, KA Associates, Inc. He began his career in 1966 as an analyst with Loeb, Rhodes & Co. in New York. Prior to forming Kayne Anderson's predecessor in 1984, Mr. Kayne was a principal of Cantor Fitzgerald & Co., Inc., where he managed private accounts, a hedge fund and a portion of firm capital. Mr. Kayne is a trustee of and the former Chairman of the Investment Committee of the University of California at Los Angeles

Foundation, and is a trustee and Co-Chairman of the Investment Committee of the Jewish Community Foundation of Los Angeles. He earned a BS degree in Statistics from Stanford University in 1966 and an MBA degree from UCLA's Anderson School of Management 1968.

Robert V. Sinnott is Chief Investment Officer and Senior Managing Director of Energy Investments of Kayne Anderson. Mr. Sinnott is a member of the Board of Directors of Plains All American Pipeline, LP. He joined Kayne Anderson in 1992. From 1986 to 1992, Mr. Sinnott was vice president and senior securities officer of Citibank's Investment Banking Division, concentrating in high-yield corporate buyouts and restructuring opportunities. From 1981 to 1986, he served as director of corporate finance for United Energy Resources, a pipeline company. Mr. Sinnott began his career in the financial industry in 1976 as a vice president and debt analyst for Bank of America in its oil and gas finance department. Mr. Sinnott graduated from the University of Virginia in 1971 with a BA degree in Economics. In 1976, he received an MBA degree in Finance from Harvard University.

Richard J. Farber is a Senior Managing Director of Kayne Anderson. Mr. Farber is responsible for proprietary trading and hedging, and serves as Portfolio Manager for arbitrage strategies. He also provides analytical support in the MLP area. Mr. Farber joined Kayne Anderson in 1994. From 1990 to 1994, Mr. Farber was vice president of Lehman Brothers' Commodity Risk Management Group, specializing in energy trading. He also worked at Lehman Brothers as an institutional equity trader from 1988 to 1990. From 1985 to 1986, Mr. Farber was employed by Salomon Brothers, Inc. as a mortgage bond analyst. Mr. Farber graduated from Franklin and Marshall College in 1982 with a BA degree in Economics. In 1988, he received his MBA degree in Finance from UCLA's Anderson School of Management.

Stephen Smith is a Managing Director of Kayne Anderson. Mr. Smith provides analytical support in the MLP area and is responsible for client relations. Mr. Smith joined Kayne Anderson in 2002. From 2000 to 2002, Mr. Smith was an Associate with Goldman, Sachs, Inc.'s Telecommunications, Media and Entertainment investment banking group. In 1999, he was a summer associate in corporate finance with Salomon Smith Barney while attending graduate business school. From 1997 to 1998, Mr. Smith was an analyst with Kayne Anderson. He received a BBA degree in Marketing and Finance from the University of Texas at Austin in 1993 and an MBA degree in Finance from UCLA's Anderson School of Management in 2000.

Kayne Anderson's principal office is located at 1800 Avenue of the Stars, Second Floor, Los Angeles, California 90067. For additional information concerning Kayne Anderson, including a description of the services to be provided by Kayne Anderson, see "— Investment Management Agreement" below.

Investment Management Agreement

Pursuant to an investment management agreement (the "Investment Management Agreement") between us and Kayne Anderson, we have agreed to pay Kayne Anderson a basic management fee at an annual rate of 1.75% of our average total assets, adjusted upward or downward (by up to 1.00% of our average total assets), depending on to what extent, if any, our investment performance for the relevant performance period exceeds or trails our "Benchmark" over the same period. Our Benchmark is the total return (capital appreciation and reinvested dividends) of the Standard & Poor's 400 Utilities Index plus 600 basis points (6.00%). Our Benchmark for the 12-month period ending on June 30, 2004 was 21.79%.

The following table indicates the performance of the Standard & Poor's 400 Utilities Index since its inception in 1995:

Year	Standard & Poor's 400 Utilities Index	Benchmark (Standard & Poor's 400 Utilities Index plus 6.00%)
1995	31.3%	37.3%
1996	9.2%	15.2%
1997	29.6%	35.6%
1998	7.6%	13.6%
1999	-11.7%	-5.7%
2000	55.9%	61.9%
2001	-9.3%	-3.3%
2002	-11.5%	-5.5%
2003	26.2%	32.2%
1/1/2004 to 6/30/2004(1)	6.9%	12.9%
Average annual return inception to 6/30/2004	13.6%	19.6%

Source: Bloomberg.

(1) Returns for the period shown are annualized estimates.

Calculation of the Performance Adjustment to the Management Fee. Each 0.01% of difference of our performance compared to the performance of the Benchmark is multiplied by a performance adjustment of 0.002%, up to a maximum adjustment of 1.00% (as an annual rate). Thus, an annual excess performance difference of 5.00% or more between our performance and the Benchmark would result in an annual maximum performance adjustment of 1.00%. This formula requires that our performance exceed the performance of the Benchmark before any upward adjustment is made to the management fee. If our performance is below the performance of the Benchmark, the management fee would be adjusted downward.

Here are examples of how the adjustment would work (using annual rates):

Performance of our Portfolio(1)	Benchmark (Standard & Poor's 400 Utilities Index plus 6.00%)	Basic Management Fee	Performance Adjustment	Total Management Fee
20.00% or higher	15.00%	1.75%	1.00%	2.75%
18.00%	15.00%	1.75%	0.60%	2.35%
15.00%	15.00%	1.75%	0.00%	1.75%
12.00%	15.00%	1.75%	(0.60)%	1.15%
10.00% or lower	15.00%	1.75%	(1.00)%	0.75%

(1) Our performance for a given period is calculated on a per share basis as a fraction, the numerator of which is the sum of (W) our net asset value at the end of the period minus our net asset value at the

beginning of the period, (X) any dividends or distributions paid by us during the period,(Y) taxes paid during or accrued (on a net basis) for the period, and (Z) management fees paid or accrued for the period, and the denominator of which is our net asset value at the beginning of the period.

The performance record for the Benchmark is based on the change in value of the Benchmark during the relevant performance period. During our first fiscal year, for purposes of calculating the performance adjustment, our initial net asset value will be calculated net of the underwriting discount.

Because the performance adjustment is based on a comparison of our performance with the record of the Benchmark, the controlling factor (regarding such adjustment) is not whether our performance is up or down, but whether it is up or down more or less than the performance record of the Benchmark. Moreover, our comparative investment record will be based solely on the relevant performance period without regard to the cumulative performance over a longer period. It is possible for high past performance to result in a management fee payment by us that is higher than current performance would otherwise produce.

For the period beginning with the commencement of our operations through the end of our first 12 months of operations (September 30, 2005), on a quarterly fiscal basis we will pay Kayne Anderson a minimum management fee calculated at an annual rate of 0.75%. At the end of our first 12 months of operations, we will calculate the performance adjustment based on our performance to that date from the commencement of our operations. We will then calculate the total management fee based on the average total assets for the prior 12 months, subtract the minimum management fee, and pay the balance of the management fee to Kayne Anderson. After this initial period, the basic management fee and the performance fee adjustment will be calculated and paid quarterly beginning with the quarter ending November 30, 2005, using a rolling 12-month performance period. Management fees in excess of those paid will be accrued monthly.

For purposes of calculation of the management fee, the "average total assets" for the prior 12 months shall be determined on the basis of the average of our total assets for each month in such period. Total assets for each monthly period will be determined by averaging the total assets at the last business day of that month with the total assets at the last business day of the prior month (or as of the commencement of operations for the initial period if a partial month). Our total assets shall be equal to our average monthly gross asset value (which includes assets attributable to our use of preferred stock, commercial paper or notes issuances and other borrowings), minus the sum of our accrued and unpaid dividends on any outstanding common stock and accrued and unpaid dividends on any outstanding preferred stock and accrued liabilities (other than the principal amount of any borrowings incurred, commercial paper or notes issued by us and the liquidation preference of any outstanding preferred stock and accrued taxes).

In addition to Kayne Anderson's management fee, we pay all other costs and expenses of our operations, including compensation of our Directors (other than those affiliated with Kayne Anderson), custodian, transfer agency, administrative, accounting and dividend disbursing expenses, legal fees, leverage expenses, expenses of independent auditors, expenses of repurchasing shares, expenses of preparing, printing and distributing stockholder reports, notices, proxy statements and reports to governmental agencies, and taxes, if any.

Because Kayne Anderson's fee is based upon a percentage of our total assets, Kayne Anderson's fee is likely to be higher if we employ leverage. In this regard, if we use leverage in the amount equal to 30% of our total assets (after their issuance), the management fee rates payable to Kayne Anderson may be as low as 1.07% or as high as 3.93% of net assets attributable to common stock. See "Fees and Expenses" at page 12.

NET ASSET VALUE

We will determine our net asset value as of the close of regular session trading on the NYSE (normally 4:00 p.m. Eastern time) no less frequently than the last business day of each month, and will make our net asset value available for publication monthly. Net asset value is computed by dividing the value of all of our assets (including accrued interest and dividends), less all of our liabilities (including accrued expenses, dividends payable, current and deferred and other accrued income taxes, and any borrowings) and the liquidation value of any outstanding preferred stock, by the total number of shares outstanding.

We expect to hold a substantial amount of securities that are privately issued or illiquid. For these securities, as well as any other portfolio security held by us for which reliable market quotations are not readily available, valuations will be determined in a manner that most fairly reflects fair value of the security on the valuation date. Unless otherwise determined by our Board of Directors, the following valuation process will be used for such securities:

- ***Investment Team Valuation.*** The applicable investments will initially be valued by Kayne Anderson's investment professionals responsible for the portfolio investments;
- ***Investment Team Valuation Documentation.*** Preliminary valuation conclusions will be documented and discussed with senior management of Kayne Anderson;
- ***Valuation Committee.*** The Valuation Committee, a committee of our Board of Directors, will meet on an as-needed basis when valuations are not readily determinable. The Valuation Committee's valuations will stand for intervening periods of time unless the Valuation Committee meets again at the request of Kayne Anderson, the Board of Directors or the Committee itself. All valuation determinations of the Valuation Committee will be subject to ratification by the Board at its next regular meeting.
- ***Valuation Firm.*** No less than quarterly, a third-party valuation firm engaged by the Board of Directors will review the valuation methodologies and calculations employed for these securities.
- ***Board of Directors Determination.*** The Board of Directors will meet quarterly to consider the valuations provided by Kayne Anderson and the Valuation Committee, if applicable, and set valuations for the applicable securities. The Board of Directors will consider the report provided by the third-party valuation firm in reviewing and determining in good faith the fair value of the applicable portfolio securities.

We may rely to some extent on information provided by the MLPs, which may not necessarily be timely, to estimate taxable income allocable to the MLP units held in our portfolio and to estimate the associated deferred tax liability. Such estimates will be made in good faith and reviewed in accordance with the valuation process approved by our Board of Directors. From time to time we will modify our estimates and/or assumptions regarding our deferred tax liability as new information becomes available. To the extent we modify our estimates and/or assumptions, our net asset value would likely fluctuate.

For publicly traded securities with a readily available market price, the valuation will be as described below. Readily marketable portfolio securities listed on any exchange other than the NASDAQ will be valued, except as indicated below, at the last sale price on the business day as of which such value is being determined. If there has been no sale on such day, the securities are valued at the mean of the most recent bid and asked prices on such day. Securities admitted to trade on the NASDAQ will be valued at the NASDAQ official closing price. Portfolio securities traded on more than one securities exchange will be valued at the last sale price on the business day as of which such value is being determined at the close of the exchange representing the principal market for such securities.

Equity securities traded in the over-the-counter market, but excluding securities admitted to trading on the NASDAQ, will be valued at the closing bid prices. Fixed income securities with a remaining maturity of 60 days or more will be valued by us using a pricing service. When price quotes are not

available, fair market value will be based on prices of comparable securities. Fixed income securities maturing within 60 days will be valued on an amortized cost basis.

Any derivative transaction that we enter into may, depending on the applicable market environment, have a positive or negative value for purposes of calculating our net asset value. Any option transaction that we enter into may, depending on the applicable market environment, have no value or a positive value. Exchange traded options and futures contracts will be valued at the closing price in the market where such contracts are principally traded.

Because we will be obligated to pay corporate income taxes, we will accrue tax liability. As with any other liability, our net asset value will be reduced by the accruals of our current and deferred tax liabilities (and any tax payments required in excess of such accruals). The allocation between current and deferred income taxes will be determined based upon the value of assets reported for book purposes compared to the respective net tax bases of assets recognized for federal income tax purposes. It is anticipated that cash distributions from MLPs in which we invest will not equal the amount of our taxable income because of the depreciation and amortization recorded by the MLPs in our portfolio. As a result, a portion of such cash distributions may not be treated by us as income for federal income tax purposes. The relative portion of such distributions not treated as income for tax purposes will vary among the MLPs, and also will vary year by year for each MLP. We will be able to confirm the portion of each distribution recognized as taxable income as we receive annual tax reporting information from each MLP.

DIVIDEND REINVESTMENT PLAN

If your common stock is registered directly with us or if you hold your common stock with a brokerage firm that participates in our Dividend Reinvestment Plan, unless you elect to receive your dividends or other distributions in cash, they will be automatically reinvested by the Plan Agent, American Stock Transfer & Trust Company, in additional common stock under the Dividend Reinvestment Plan (the "Plan"). If you elect to receive your dividends or other distributions in cash, you will receive them in cash paid by check mailed directly to you by American Stock Transfer & Trust Company, as dividend paying agent.

If you decide to participate in the Plan, the number of shares of common stock you will receive will be determined as follows:

(1) If our common stock is trading at or above net asset value at the time of valuation, we will issue new shares at a price equal to the greater of (i) our common stock's net asset value on that date or (ii) 95% of the market price of our common stock on that date.

(2) If our common stock is trading below net asset value at the time of valuation, the Plan Agent will receive the dividend or distribution in cash and will purchase common stock in the open market, on the NYSE or elsewhere, for the participants' accounts. It is possible that the market price for our common stock may increase before the Plan Agent has completed its purchases. Therefore, the average purchase price per share paid by the Plan Agent may exceed the market price at the time of valuation, resulting in the purchase of fewer shares than if the dividend or distribution had been paid in common stock issued by us. The Plan Agent will use all dividends and distributions received in cash to purchase common stock in the open market within 30 days of the valuation date except where temporary curtailment or suspension of purchases is necessary to comply with federal securities laws. Interest will not be paid on any uninvested cash payments.

You may withdraw from the Plan at any time by giving written notice to the Plan Agent, or by telephone in accordance with such reasonable requirements as we and the Plan Agent may agree upon. If you withdraw or the Plan is terminated, you will receive a certificate for each whole share in your account under the Plan and you will receive a cash payment for any fraction of a share in your account. If you wish, the Plan Agent will sell your shares and send you the proceeds, minus brokerage commissions.

The Plan Agent maintains all common stockholders' accounts in the Plan and gives written confirmation of all transactions in the accounts, including information you may need for tax records. Common stock in your account will be held by the Plan Agent in non-certificated form. The Plan Agent will forward to each participant any proxy solicitation material and will vote any shares so held only in accordance with proxies returned to us. Any proxy you receive will include all common stock you have received under the Plan.

There is no brokerage charge for reinvestment of your dividends or distributions in common stock. However, all participants will pay a pro rata share of brokerage commissions incurred by the Plan Agent when it makes open market purchases.

Automatically reinvesting dividends and distributions does not mean that you do not have to pay income taxes due upon receiving dividends and distributions. See "Tax Matters" at page 56.

If you hold your common stock with a brokerage firm that does not participate in the Plan, you will not be able to participate in the Plan and any dividend reinvestment may be effected on different terms than those described above. Consult your financial advisor for more information.

There is no direct service charge to participants in the Plan; however, we reserve the right to amend or terminate the Plan if in the judgment of the Board of Directors the change is warranted. We also reserve the right to amend the Plan to include a service charge payable by the participants. Additional information about the Plan may be obtained from American Stock Transfer & Trust Company at 59 Maiden Lane, New York, New York 10038.

DESCRIPTION OF CAPITAL STOCK

The following description is based on relevant portions of the Maryland General Corporation Law and on our Charter and Bylaws. This summary is not necessarily complete, and we refer you to the Maryland General Corporation Law and our Charter and Bylaws for a more detailed description of the provisions summarized below.

Capital Stock

Our authorized capital stock consists of 200,000,000 shares of stock, par value $0.001 per share, all of which is initially classified as common stock. There is currently no market for our common stock, and we can offer no assurances that a market for our shares will develop in the future. Our common stock has been approved for listing on the NYSE under the symbol "KYN" subject to official notice of issuance. There are no outstanding options or warrants to purchase our stock. No stock has been authorized for issuance under any equity compensation plans. Under Maryland law, our stockholders generally are not personally liable for our debts or obligations.

Under our Charter, our Board of Directors is authorized to classify and reclassify any unissued shares of stock into other classes or series of stock and authorize the issuance of shares of stock without obtaining stockholder approval. As permitted by the Maryland General Corporation Law, our Charter provides that the Board of Directors, without any action by our stockholders, may amend the Charter from time to time to increase or decrease the aggregate number of shares of stock or the number of shares of stock of any class or series that we have authority to issue.

Common Stock

All shares of our common stock have equal rights as to earnings, assets, dividends and voting and, when they are issued, will be duly authorized, validly issued, fully paid and nonassessable. Dividends may be paid to the holders of our common stock if, as and when authorized by our Board of Directors and declared by us out of funds legally available therefor. Shares of our common stock have no preemptive, appraisal, exchange, conversion or redemption rights and are freely transferable, except where their transfer is restricted by federal and state securities laws or by contract. In the event of our liquidation, dissolution or winding up, each share of our common stock would be entitled to share ratably in all of our assets that are legally available for distribution after we pay all debts and other liabilities and subject to any preferential rights of holders of our preferred stock, if any preferred stock is outstanding at such time. Each share of our common stock is entitled to one vote on all matters submitted to a vote of stockholders, including the election of directors. Except as provided with respect to any other class or series of stock, the holders of our common stock will possess exclusive voting power. There is no cumulative voting in the election of directors, which means that holders of a majority of the outstanding shares of common stock can elect all of our directors, and holders of less than a majority of such shares will be unable to elect any director.

Preferred Stock

Our Charter authorizes our Board of Directors to classify and reclassify any unissued shares of stock into other classes or series of stock, including preferred stock, without the approval of the holders of our common stock. Holders of common stock have no preemptive right to purchase any preferred stock that might be issued. We may elect to issue preferred stock as part of our leverage strategy. See "Description of Preferred Stock" in our statement of additional information.

Prior to issuance of shares of each class or series, our Board of Directors is required by Maryland law and by our Charter to set the terms, preferences, conversion or other rights, voting powers, restrictions, limitations as to dividends or other distributions, qualifications and terms or conditions of redemption for each class or series. Thus, the Board of Directors could authorize the issuance of shares of preferred stock with terms and conditions which could have the effect of delaying, deferring or preventing a transaction or a change in control that might involve a premium price for holders of our common stock or otherwise be

in their best interest. You should note, however, that any issuance of preferred stock must comply with the requirements of the 1940 Act.

Among other requirements, including other voting rights, the 1940 Act requires that the holders of any preferred stock, voting separately as a single class, have the right to elect at least two Directors at all times. The remaining Directors will be elected by holders of our common stock and preferred stock, voting together as a single class. In addition, subject to the prior rights, if any, of the holders of any other class of senior securities outstanding, the holders of any preferred stock have the right to elect a majority of our Directors at any time two years' dividends on any preferred stock are unpaid. See "Description of Preferred Stock" in our statement of additional information.

Certain Provisions of the Maryland General Corporation Law and our Charter and Bylaws

The Maryland General Corporation Law and our Charter and Bylaws contain provisions that could make it more difficult for a potential acquiror to acquire us by means of a tender offer, proxy contest or otherwise. These provisions are expected to discourage certain coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of us to negotiate first with our Board of Directors. We believe the benefits of these provisions outweigh the potential disadvantages of discouraging any such acquisition proposals because, among other things, the negotiation of such proposals may improve their terms.

Classified Board of Directors. Our Board of Directors is divided into three classes of directors serving staggered three-year terms. The initial terms of the first, second and third classes will expire in 2005, 2006 and 2007, respectively. Beginning in 2005, upon expiration of their current terms, directors of each class will be elected to serve for three-year terms and until their successors are duly elected and qualify and each year one class of directors will be elected by the stockholders. A classified board may render a change in control of us or removal of our incumbent management more difficult. We believe, however, that the longer time required to elect a majority of a classified Board of Directors will help to ensure the continuity and stability of our management and policies.

Election of Directors. Our Charter and Bylaws provide that the affirmative vote of the holders of a majority of the outstanding shares of stock entitled to vote in the election of directors will be required to elect a director. Pursuant to our Charter, our Board of Directors may amend the Bylaws to alter the vote required to elect directors.

Number of Directors; Vacancies; Removal. Our Charter provides that the number of directors will be set only by the Board of Directors in accordance with our Bylaws. Our Bylaws provide that a majority of our entire Board of Directors may at any time increase or decrease the number of directors. However, unless our Bylaws are amended, the number of directors may never be less than the minimum number required by the Maryland General Corporation Law nor more than fifteen. Our Charter provides that, at such time as we have at least three independent directors and our common stock is registered under the Exchange Act, we elect to be subject to the provision of Subtitle 8 of Title 3 of the Maryland General Corporation Law regarding the filling of vacancies on the Board of Directors. Accordingly, at such time, except as may be provided by the Board of Directors in setting the terms of any class or series of preferred stock, any and all vacancies on the Board of Directors may be filled only by the affirmative vote of a majority of the remaining directors in office, even if the remaining directors do not constitute a quorum, and any director elected to fill a vacancy will serve for the remainder of the full term of the directorship in which the vacancy occurred and until a successor is elected and qualifies, subject to any applicable requirements of the 1940 Act.

Our Charter provides that a director may be removed only for cause, as defined in the Charter, and then only by the affirmative vote of at least two-thirds of the votes entitled to be cast in the election of directors.

Action by Stockholders. Under the Maryland General Corporation Law, stockholder action can be taken only at an annual or special meeting of stockholders or, unless the charter provides for stockholder

action by less than unanimous written consent (which is not the case for our Charter), by unanimous written consent in lieu of a meeting. These provisions, combined with the requirements of our Bylaws regarding the calling of a stockholder-requested special meeting of stockholders discussed below, may have the effect of delaying consideration of a stockholder proposal until the next annual meeting.

Advance Notice Provisions for Stockholder Nominations and Stockholder Proposals. Our Bylaws provide that with respect to an annual meeting of stockholders, nominations of persons for election to the Board of Directors and the proposal of business to be considered by stockholders may be made only (1) pursuant to our notice of the meeting, (2) by the Board of Directors or (3) by a stockholder who is entitled to vote at the meeting and who has complied with the advance notice procedures of the Bylaws. With respect to special meetings of stockholders, only the business specified in our notice of the meeting may be brought before the meeting. Nominations of persons for election to the Board of Directors at a special meeting may be made only (1) pursuant to our notice of the meeting, (2) by the Board of Directors or (3) provided that the Board of Directors has determined that directors will be elected at the meeting, by a stockholder who is entitled to vote at the meeting and who has complied with the advance notice provisions of the Bylaws.

Calling of Special Meetings of Stockholders. Our Bylaws provide that special meetings of stockholders may be called by our Board of Directors and certain of our officers. Additionally, our Bylaws provide that, subject to the satisfaction of certain procedural and informational requirements by the stockholders requesting the meeting, a special meeting of stockholders will be called by the secretary of the corporation upon the written request of stockholders entitled to cast not less than a majority of all the votes entitled to be cast at such meeting.

Approval of Extraordinary Corporate Action; Amendment of Charter and Bylaws. Under Maryland law, a Maryland corporation generally cannot dissolve, amend its charter, merge, sell all or substantially all of its assets, engage in a share exchange or engage in similar transactions outside the ordinary course of business, unless approved by the affirmative vote of stockholders entitled to cast at least two-thirds of the votes entitled to be cast on the matter. However, a Maryland corporation may provide in its charter for approval of these matters by a lesser percentage, but not less than a majority of all of the votes entitled to be cast on the matter. Our Charter generally provides for approval of Charter amendments and extraordinary transactions by the stockholders entitled to cast at least a majority of the votes entitled to be cast on the matter. Our Charter also provides that certain Charter amendments and any proposal for our conversion, whether by merger or otherwise, from a closed-end company to an open-end company or any proposal for our liquidation or dissolution requires the approval of the stockholders entitled to cast at least 80 percent of the votes entitled to be cast on such matter. However, if such amendment or proposal is approved by at least 80 percent of our continuing directors (in addition to approval by our Board of Directors), such amendment or proposal may be approved by a majority of the votes entitled to be cast on such a matter. The "continuing directors" are defined in our Charter as our current directors as well as those directors whose nomination for election by the stockholders or whose election by the directors to fill vacancies is approved by a majority of the continuing directors then on the Board of Directors. Our Charter and Bylaws provide that the Board of Directors will have the exclusive power to adopt, alter or repeal any provision of our Bylaws and to make new Bylaws.

OUR STRUCTURE; COMMON STOCK REPURCHASES AND CHANGE IN OUR STRUCTURE

Closed-End Structure

Closed-end funds differ from open-end management investment companies (commonly referred to as "mutual funds"). Closed-end funds generally list their shares for trading on a securities exchange and do not redeem their shares at the option of the stockholder. In contrast, mutual funds issue securities redeemable at net asset value at the option of the stockholder and typically engage in a continuous offering of their shares. Mutual funds are subject to continuous asset in-flows and out-flows that can complicate portfolio management, whereas closed-end funds generally can stay more fully invested in securities consistent with the closed-end fund's investment objective and policies. Accordingly, closed-end funds have greater flexibility than open-end funds to make certain types of investments, including investments in illiquid securities.

Shares of closed-end investment companies listed for trading on a securities exchange frequently trade at discounts from their net asset values, but in some cases trade at a premium. The market price may be affected by net asset value, dividend or distribution levels (which are dependent, in part, on expenses), supply of and demand for the shares, stability of dividends or distributions, trading volume of the shares, general market and economic conditions and other factors beyond the control of the closed-end fund. The foregoing factors may result in the market price of our common stock being greater than, less than or equal to net asset value. The Board of Directors has reviewed our structure in light of our investment objective and policies and has determined that the closed-end structure is in the best interests of our stockholders. However, the Board of Directors may review periodically the trading range and activity of our shares with respect to our net asset value and may take certain actions to seek to reduce or eliminate any such discount. Such actions may include open market repurchases or tender offers for our common stock at net asset value or our possible conversion to an open-end mutual fund. There can be no assurance that the Board will decide to undertake any of these actions or that, if undertaken, such actions would result in our common stock trading at a price equal to or close to net asset value per share of our common stock. Based on the determination of the Board of Directors in connection with this initial offering of our common stock that the closed-end structure is desirable in light of our investment objective and policies, it is highly unlikely that the Board would vote to convert us to an open-end investment company.

Repurchase of Common Stock and Tender Offers

In recognition of the possibility that our common stock might trade at a discount to net asset value and that any such discount may not be in the interest of our common stockholders, the Board of Directors, in consultation with Kayne Anderson, from time to time may, but is not required to, review possible actions to reduce any such discount. The Board of Directors also may, but is not required to, consider from time to time open market repurchases of and/or tender offers for our common stock, as well as other potential actions, to seek to reduce any market discount from net asset value that may develop. After any consideration of potential actions to seek to reduce any significant market discount, the Board may, subject to its applicable duties and compliance with applicable state and federal laws, authorize the commencement of a share-repurchase program or tender offer. The size and timing of any such share repurchase program or tender offer will be determined by the Board of Directors in light of the market discount of our common stock, trading volume of our common stock, information presented to the Board of Directors regarding the potential impact of any such share repurchase program or tender offer, general market and economic conditions and applicable law. There can be no assurance that we will in fact effect repurchases of or tender offers for any of our common stock. We may, subject to our investment limitation with respect to borrowings, incur debt to finance such repurchases or a tender offer or for other valid purposes. Interest on any such borrowings would increase our expenses and reduce our net income.

There can be no assurance that repurchases of our common stock or tender offers, if any, will cause our common stock to trade at a price equal to or in excess of their net asset value. Nevertheless, the possibility that a portion of our outstanding common stock may be the subject of repurchases or tender

offers may reduce the spread between market price and net asset value that might otherwise exist. Sellers may be less inclined to accept a significant discount in the sale of their common stock if they have a reasonable expectation of being able to receive a price of net asset value for a portion of their common stock in conjunction with an announced repurchase program or tender offer for our common stock.

Although the Board of Directors believes that repurchases or tender offers generally would have a favorable effect on the market price of our common stock, the acquisition of common stock by us will decrease our total assets and therefore will have the effect of increasing our expense ratio and decreasing the asset coverage with respect to any preferred stock outstanding. Because of the nature of our investment objective, policies and portfolio, particularly our investment in illiquid or otherwise restricted securities, it is possible that repurchases of common stock or tender offers could interfere with our ability to manage our investments in order to seek our investment objective. Further, it is possible that we could experience difficulty in borrowing money or be required to dispose of portfolio securities to consummate repurchases of or tender offers for common stock.

Possible Conversion to Open-End Fund Status

Our Charter provides that any proposal for our conversion from a closed-end company to an open-end company requires the approval of our Board of Directors and the stockholders entitled to cast at least 80 percent of the votes entitled to be cast on such matter. However, if such proposal is also approved by at least 80 percent of our continuing directors (in addition to the approval by our Board of Directors), such proposal may be approved by a majority of the votes entitled to be cast on the matter. See "Description of Capital Stock" for a discussion of voting requirements applicable to our conversion to an open-end investment company. If we converted to an open-end investment company, we would be required to redeem all preferred stock then outstanding (requiring in turn that we liquidate a portion of our investment portfolio) and our common stock would no longer be listed on the NYSE. Conversion to open-end status could also require us to modify certain investment restrictions and policies. Stockholders of an open-end investment company may require the investment company to redeem their shares at any time (except in certain circumstances as authorized by or permitted under the 1940 Act) at their net asset value, less such redemption charge, if any, as might be in effect at the time of redemption. In order to avoid maintaining large cash positions or liquidating favorable investments to meet redemptions, open-end investment companies typically engage in a continuous offering of their shares. Open-end investment companies are thus subject to periodic asset in-flows and out-flows that can complicate portfolio management. Our Board of Directors may at any time propose our conversion to open-end status, depending upon its judgment regarding the advisability of such action in light of circumstances then prevailing.

TAX MATTERS

The following discussion of federal income tax matters is based on the advice of our counsel, Paul, Hastings, Janofsky & Walker LLP.

This section and the discussion in our statement of additional information summarize the material U.S. federal income tax consequences of owning our shares for U.S. taxpayers. This section is current as of the date of this prospectus. Tax laws and interpretations change frequently, and this summary does not describe all of the tax consequences to all taxpayers. For example, this summary generally does not describe your situation if you are a non-U.S. person, a broker-dealer, or other investor with special circumstances. In addition, this section does not describe your state, local or foreign taxes. As with any investment, you should consult your own tax professional about your particular consequences. Investors should consult their own tax advisors regarding the tax consequences of investing in us.

Federal Income Taxation

We will be treated as a corporation for federal income tax purposes. Thus, we will be obligated to pay federal income tax on our taxable income. We will also be obligated to pay state income tax on our taxable income, either because the states follow the federal treatment or because the states separately

impose a tax on us. We intend to invest our assets principally in MLPs, which generally are treated as partnerships for federal income tax purposes. As a partner in the MLPs, we will have to report our allocable share of the MLP's taxable income in computing our taxable income. Based upon our review of the historic results of the type of MLPs in which we intend to invest, we expect that the cash flow received by us with respect to our MLP investments will exceed the taxable income allocated to us. There is no assurance that our expectation regarding the tax character of MLP distributions will be realized. If this expectation is not realized, there will be greater tax expense borne by us and less cash available to distribute to stockholders. In addition, we will take into account in our taxable income amounts of gain or loss recognized on the sale of MLP units. Currently, the maximum regular federal income tax rate for a corporation is generally 35%, but we may be subject to a 20% alternative minimum tax on our alternative minimum taxable income to the extent that the alternative minimum tax exceeds our regular income tax. We will accrue deferred tax liabilities associated with unrealized capital gains on our investments.

As a corporation for tax purposes, our earnings and profits will be calculated using accounting methods that are different from tax calculation methods. For instance, to calculate our earnings and profits we will use the straight-line depreciation method rather than the accelerated depreciation method. This treatment may, for example, affect our earnings and profits if an MLP in which we invest calculates its income using accelerated depreciation. Our earnings and profits would not be increased solely by the income passed through from the MLP, but we would also have to include in our earnings and profits the amount by which the accelerated depreciation exceeded straight-line depreciation.

Because of the differences in the manner in which earnings and profits and taxable income are calculated, we may make distributions out of earnings and profits, treated as dividends, in years in which we have no taxable income.

In addition, in calculating our alternative minimum taxable income, certain percentage depletion deductions and intangible drilling costs may be treated as items of tax preference. Items of tax preference increase alternative minimum taxable income and increase the likelihood that we may be subject to alternative minimum tax.

We will not currently elect to be treated as a regulated investment company under the Internal Revenue Code. The Internal Revenue Code generally provides that a regulated investment company does not pay an entity level income tax, provided that it distributes all or substantially all of its income. Thus, the regulated investment company taxation rules have no current application to us or to our stockholders.

Federal Income Taxation of Stockholders

Unlike a holder of a direct interest in MLPs, a stockholder will not include its allocable share of our income, gains, losses or deductions in computing its own taxable income. Our distributions of our distributable cash flow (see "Dividends" at page 29) will be treated as a taxable dividend to the stockholder to the extent of our current or accumulated earnings and profits. If the distribution exceeds our earnings and profits, the distribution will be treated as a return of capital to our common stockholder to the extent of the stockholder's basis in our common stock, and then as capital gain. Common stockholders will receive a Form 1099 from us (rather than a Schedule K-1 from each MLP if the stockholder had invested directly in the MLPs) and will recognize dividend income only to the extent of our current and accumulated earnings and profits.

Generally, a corporation's earnings and profits are computed based upon taxable income, with certain specified adjustments. As explained above, based upon the historic performance of the MLPs, we anticipate that the distributed cash from an MLP will exceed our share of such MLP's income. Thus, we anticipate that only a portion of distributions of distributable cash flow will be treated as dividend income to our common stockholders. As a corporation for tax purposes, our earnings and profits will be calculated using (i) straight-line depreciation rather than accelerated depreciation, and cost rather than a percentage depletion method, and (ii) intangible drilling costs and exploration and development costs are amortized over a five-year and ten-year period, respectively. Because of the differences in the manner in which earnings and profits and taxable income are calculated, we may make distributions out of earnings and

profits, treated as dividends, in years in which we have no taxable income. To the extent that distributions to a stockholder exceed our earnings and profits, a stockholder's basis in our common stock will be reduced and, if a stockholder has no further basis in our shares, a stockholder will report any excess as capital gain.

The Jobs and Growth Tax Relief Reconciliation Act of 2003 amended the federal income tax law generally to reduce the maximum federal income tax rate of qualified dividend income to the rate applicable to long-term capital gains, which is generally 15% for individuals, provided a holding period requirement and certain other requirements are met. The portion of our distributions of distributable cash flow treated as a dividend for federal income tax purposes should be treated as qualified dividend income for federal income tax purposes. This reduced rate of tax on dividends is currently scheduled to revert to ordinary income rates for taxable years beginning after December 31, 2008 and the 15% federal income tax rate for long-term capital gain is schedule to revert to 20% for such taxable years.

If a stockholder participates in our automatic dividend plan, such stockholder will be taxed upon the amount of distributions as if such amount had been received by the participating stockholder and the participating stockholder reinvested such amount in additional common stock.

Investment by Tax-Exempt Investors and Regulated Investment Companies

Employee benefit plans and most other organizations exempt from federal income tax, including individual retirement accounts and other retirement plans, are subject to federal income tax on UBTI. Because we are a corporation for federal income tax purposes, an owner of our common stock will not report on its federal income tax return any of our items of income, gain, loss and deduction. Therefore, a tax-exempt investor generally will not have UBTI attributable to its ownership or sale of our common stock unless its ownership of our common stock is debt-financed. In general, common stock would be debt-financed if the tax-exempt owner of common stock incurs debt to acquire common stock or otherwise incurs or maintains a debt that would not have been incurred or maintained if that common stock had not been acquired.

For federal income tax purposes, a regulated investment company is currently required to derive 90% or more of its gross income from interest, dividends and gains from the sale of stocks or securities or foreign currency or specified related sources. As stated above, an owner of our common stock will not report on its federal income tax return any of our items of income, gain, loss and deduction. Instead, the owner will simply report income with respect to our distributions or gain with respect to the sale of our common stock. Thus, ownership of our common stock will only result in income that is qualifying income for a mutual fund. Furthermore, any gain from the sale or other disposition of our common stock will constitute gain from the sale of stock or securities and will qualify for purposes of the 90% test applicable to mutual funds. Finally, our common stock will constitute qualifying assets to mutual funds, which generally must own at least 50% in qualifying assets at the end of each quarter.

Sale of Our Common Stock

Upon sale of our common stock, the selling stockholder generally will recognize capital gain or loss measured by the difference between the sales proceeds received and the stockholder's federal income tax basis of common stock sold, which may be less than the price paid for our common stock as a result of distributions in excess of our earnings and profits (*i.e.*, return(s) of capital). Generally, such capital gain or loss will be long-term capital gain or loss if such common stock were held as a capital asset for more than one year.

Backup Withholding and Information Reporting

Backup withholding of U.S. federal income tax may apply to the distributions on our common stock to be made by us if you fail to timely provide taxpayer identification numbers or if we are so instructed by the Internal Revenue Service ("IRS"). Any amounts withheld from a payment to a U.S. holder under the

backup withholding rules are allowable as a refund or credit against the holder's U.S. federal income tax liability, provided that the required information is furnished to the IRS in a timely manner.

State and Local Taxes

Our common stock dividends also may be subject to state and local taxes.

Tax matters are very complicated, and the federal, state and local tax consequences of an investment in and holding of our common stock will depend on the facts of each investor's situation. Investors are encouraged to consult their own tax advisers regarding the specific tax consequences that may affect such investors.

Tax Risks

Investing in our common stock involves certain tax risks, which are fully described in the section "Risk Factors — Tax Risks" at page 18.

UNDERWRITING

Citigroup Global Markets Inc. and UBS Securities LLC are acting as joint book-running managers of the offering and as representatives of the underwriters named below. Subject to the terms and conditions stated in the underwriting agreement dated the date of this prospectus, each underwriter named below has agreed to purchase, and we have agreed to sell to that underwriter, the number of shares set forth opposite the underwriter's name.

Underwriter	Number of Shares
Citigroup Global Markets Inc.	15,200,000
UBS Securities LLC	9,200,000
RBC Capital Markets Corporation	2,000,000
Deutsche Bank Securities Inc.	1,600,000
Sanders Morris Harris Inc.	700,000
A.G. Edwards & Sons, Inc.	250,000
Advest, Inc.	250,000
Legg Mason Wood Walker, Incorporated	250,000
Oppenheimer & Co. Inc.	250,000
Ferris, Baker Watts, Incorporated	75,000
Morgan Keegan & Company, Inc.	75,000
Robert W. Baird & Co. Incorporated	75,000
Wedbush Morgan Securities Inc.	75,000
Total	30,000,000

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 underwriters are obligated to purchase all the shares (other than those covered by the over-allotment option described below) if they purchase any of the shares.

The underwriters propose to offer some of the shares directly to the public at the public offering price set forth on the cover page of this prospectus and some of the shares to dealers at the public offering price less a concession not to exceed $0.75 per share. The underwriters may allow, and dealers may reallow, a concession not to exceed $0.10 per share on sales to other dealers. If all of the shares are not sold at the initial offering price, the representatives may change the public offering price and other selling terms. The representatives have advised us that the underwriters do not intend sales to discretionary accounts to exceed five percent of the total number of shares of our common stock offered by them.

We have granted to the underwriters an option, exercisable for 45 days from the date of this prospectus, to purchase up to 4,500,000 additional shares of common stock at the public offering price less the underwriting discount. The underwriters may exercise the option solely for the purpose of covering over-allotments, if any, in connection with this offering. To the extent the option is exercised, each underwriter must purchase a number of additional shares approximately proportionate to that underwriter's initial purchase commitment.

Certain officers of Kayne Anderson, including all of our officers, and certain of our directors, are expected to purchase approximately $5 million of our common stock at the public offering price in this offering. We and certain officers of Kayne Anderson, including all of our officers, and certain of our directors, who purchase shares of common stock in this offering have agreed that, for a period of 180 days from the date of this prospectus, we and they will not, without the prior written consent of Citigroup, dispose of or hedge any shares of our common stock or any securities convertible into or exchangeable for our common stock. Citigroup in its sole discretion may release any of the securities subject to these lock-up agreements at any time without notice. In the event that either (x) during the last 17 days of the

180-day period referred to above, we issue an earnings release or a press release announcing a significant event or (y) prior to the expiration of such 180 days, we announce that we will release earnings or issue a press release announcing a significant event during the 17-day period beginning on the last day of such 180-day period, the restrictions described above shall continue to apply until the expiration of the 17-day period beginning on the date of the earnings or the press release.

Prior to this offering, there has been no public market for our common stock. Consequently, the initial public offering price for the shares was determined by negotiations between us and the representatives. We cannot assure you, however, that the prices at which the shares will sell in the public market after this offering will not be lower than the initial public offering price or that an active trading market in our common stock will develop and continue after this offering.

Our common stock has been approved for listing on the NYSE under the symbol "KYN" subject to official notice of issuance. The underwriters have undertaken to sell shares of common stock to a minimum of 2,000 beneficial owners in lots of 100 or more shares to meet the NYSE distribution requirements for trading.

The following table shows the underwriting discounts and commissions that we are to pay to the underwriters in connection with this offering. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares of common stock.

	Paid by Us	
	No Exercise	**Full Exercise**
Per share	$ 1.25	$ 1.25
Total	$37,500,000	$43,125,000

In connection with the offering, Citigroup on behalf of the underwriters, may purchase and sell shares of common stock in the open market. These transactions may include short sales, syndicate covering transactions and stabilizing transactions. Short sales involve syndicate sales of common stock in excess of the number of shares to be purchased by the underwriters in the offering, which creates a syndicate short position. "Covered" short sales are sales of shares made in an amount up to the number of shares represented by the underwriters' over-allotment option. In determining the source of shares to close out the covered syndicate short position, 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. Transactions to close out the covered syndicate short involve either purchases of the common stock in the open market after the distribution has been completed or the exercise of the over-allotment option. The underwriters may also make "naked" short sales of shares in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares of common stock 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 shares in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consists of bids for or purchases of shares in the open market while the offering is in progress.

The underwriters also may impose a penalty bid. Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when Citigroup repurchases shares originally sold by that syndicate member in order to cover syndicate short positions or make stabilizing purchases.

Any of these activities may have the effect of preventing or retarding a decline in the market price of the common stock. They may also cause the price of the common stock to be higher than the price that would otherwise exist in the open market in the absence of these transactions. The underwriters may conduct these transactions on the NYSE or in the over-the-counter market, or otherwise. If the underwriters commence any of these transactions, they may discontinue them at any time.

The underwriters have agreed to reimburse us approximately $375,000 for certain offering expenses. After such reimbursement, we estimate that we will incur approximately $1,595,800 in expenses in connection with this offering.

The underwriters may, from time to time, engage in transactions with and perform services for us in the ordinary course of their business.

KA Associates, Inc., an affiliate of ours and Kayne Anderson, is a member of the selling group for this offering.

We have agreed to pay a structuring fee to Capital Strategies Group LLC ("CSG"). The structuring fee is estimated to total approximately $750,000. In exchange for the fee, CSG provided assistance to us in the negotiation of certain terms of this offering.

A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters. The representatives may agree to allocate a number of shares to underwriters for sale to their online brokerage account holders. The representatives will allocate shares to underwriters that may make Internet distributions on the same basis as other allocations. In addition, shares may be sold by the underwriters to securities dealers who resell shares to online brokerage account holders.

We and Kayne Anderson have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933, or to contribute to payments the underwriters may be required to make because of any of those liabilities.

The respective addresses of the representatives are: Citigroup Global Markets Inc., 388 Greenwich Street, New York, New York 10013, and UBS Securities LLC, 299 Park Avenue, New York, New York 10171.

CUSTODIAN

The Custodial Trust Company, 101 Carnegie Center, Princeton, New Jersey 08540-6231, an affiliate of our Administrator, acts as custodian of our securities and other assets.

TRANSFER AGENT AND DIVIDEND-PAYING AGENT

American Stock Transfer & Trust Company ("AST") acts as our transfer agent and dividend-paying agent. Please send all correspondence to American Stock Transfer & Trust Company, which is located at 59 Maiden Lane, New York, New York 10038. For its services, AST receives a fixed fee per account. We will reimburse AST for certain out-of-pocket expenses, which may include payments by AST to entities, including affiliated entities, that provide sub-shareholder services, recordkeeping and/or transfer agency services to our beneficial owners. The amount of reimbursements for these services per benefit plan participant fund account per year will not exceed the per account fee payable by us to AST in connection with maintaining shareholder accounts.

ADMINISTRATOR

Bear Stearns Funds Management Inc. ("Administrator") has an agreement with us to provide certain administrative services for us. Bear Stearns Funds Management Inc. is located at 383 Madison Avenue, 23rd Floor, New York, New York 10179. The administrative services Bear Stearns Funds Management Inc. provides include but are not limited to preparing and maintaining books, records, and tax and financial reports, and monitoring compliance with regulatory requirements.

FUND ACCOUNTANT

Ultimus Fund Solutions, LLC ("Ultimus"), 135 Merchant Street, Suite 230, Cincinnati, Ohio 45246, acts as our fund accountant. Ultimus will assist in the calculation of our net asset value. Ultimus will also maintain and keep current the accounts, books, records and other documents relating to our financial and portfolio transactions.

LEGAL OPINIONS

Certain legal matters in connection with our common stock will be passed upon for us by Paul, Hastings, Janofsky & Walker LLP, Los Angeles, California, and for the underwriters by Sidley Austin Brown & Wood LLP, New York, New York. Paul, Hastings, Janofsky & Walker LLP and Sidley Austin Brown & Wood LLP may rely as to certain matters of Maryland law on the opinion of Venable LLP, Baltimore, Maryland.

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PRIVACY NOTICE

Kayne Anderson MLP Investment Company (the "Company") considers privacy to be fundamental to our relationship with our stockholders. We are committed to maintaining the confidentiality, integrity and security of the non-public personal information of our stockholders and potential investors. Accordingly, we have developed internal policies to protect confidentiality while allowing stockholders' needs to be met. This notice applies to former as well as current stockholders and potential investors who provide us with nonpublic personal information.

We may collect several types of nonpublic personal information about stockholders or potential investors, including:

- Information from forms that you may fill out and send to us or one of our affiliates or service providers in connection with an investment in the Company (such as name, address, and social security number).

- Information you may give orally to us or one of our affiliates or service providers.

- Information about your transactions with us, our affiliates, or other third parties, such as the amount stockholders have invested in the Company.

- Information about any bank account stockholders or potential investors may use for transfers between a bank account and an account that holds or is expected to hold shares of our stock.

- Information collected through an Internet "cookie" (an information collecting device from a web server based on your use of a web site).

We may disclose all of the information we collect, as described above, to certain nonaffiliated third parties such as attorneys, accountants, auditors and persons or entities that are assessing our compliance with industry standards. Such third parties are required to uphold and maintain our privacy policy when handling your nonpublic personal information.

We may disclose information about stockholders or potential investors at their request. We will not sell or disclose your nonpublic personal information to anyone except as disclosed above or as otherwise permitted or required by law.

Within the Company and our affiliates, access to information about stockholders and potential investors is restricted to those personnel who need to know the information to service stockholder accounts. The personnel of the Company and our affiliates have been instructed to follow our procedures to protect the privacy of your information.

We reserve the right to change this privacy notice in the future. Except as described in this privacy notice, we will not use your personal information for any other purpose unless we inform you how such information will be used at the time you disclose it or we obtain your permission to do so.

[This page is not part of the prospectus.]

30,000,000 Shares

Kayne Anderson

MLP Investment Company

Common Stock

PROSPECTUS

September 27, 2004

Joint Book-Running Managers

Citigroup

UBS Investment Bank

RBC Capital Markets

Deutsche Bank Securities

Sanders Morris Harris