

Mutual Funds & Listed Options

Portfolio Management Strategies

Exploring ways to enhance a portfolio by using listed options

CBOE INVESTOR SERIES - PAPER NO. 1

Mutual Funds & Listed Options: Portfolio Management Strategies

CBOE Investor Series – Paper No. 1

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Mutual Funds & Listed Options: Portfolio Management Strategies

Over the past thirty years, mutual funds have experienced tremendous growth. Millions of Americans currently enjoy the flexibility and investment growth these investment vehicles provide. According to the Investment Company Institute, 36.8 million households, or about 63 million individuals, own mutual funds, with total mutual fund assets of approximately \$4.6 trillion (as of January 1998). About one-fifth of all United States retirement assets currently are entrusted to mutual funds.

For years, mutual funds and other institutional investors have bought and sold index options at the Chicago Board Options Exchange (CBOE). Index options are contracts that provide the buyer with the right, but not the obligation, to buy or sell an underlying index value, such as the Dow Jones Industrial AverageSM (ticker symbol "DJX") or the Standard & Poor's 500[®] Stock Index (ticker symbol "SPX $^{^{\rm TM}}$) at a specified price (the strike price) for a certain, fixed period of time. Index option contracts transfer equity market risk from the buyer to the seller. The option buyer pays a price - known as the premium - for the right to benefit from variability in the value of the underlying index. By buying such a contract, the buyer limits the risk of loss to the premium paid. The seller of an index option grants that right to the buyer and accepts the risk of market variability in return for the premium paid by the buyer. In this sense, the risk transfer mechanism of options is similar to that of insurance. For example, a homeowner pays a premium to transfer the risk of loss to an insurance company.



Repeal of the "Short-Short" Rule

Although mutual funds have always been permitted to trade options, in the past years the attractiveness of such trading was limited by restrictions in the Internal Revenue Code. The Taxpayer Relief Act of 1997, signed by President Clinton on August 5, 1997, repeals Section 851(b)(3), which should not only ease the administrative burden faced by mutual funds, but may also provide mutual funds greater flexibility in the selection of hedging, trading and investment strategies. The repeal of this provision allows mutual funds to engage in new trading strategies involving short-term trades without jeopardizing the corporation's status as a mutual fund. For more information regarding the Taxpayer Relief Act, see page 8.

Table 1: Protective Put Positions								
1	2	3	4	5	6			
RANGE OF	S&P 500 [®]	VALUE OF	Profit/Loss	Profit/Loss	VALUE OF			
Market	Expiration	UNPROTECTED	NDEX	PROTECTED	PROTECTED			
OUTCOMES	Level	Portfolio	O PTIONS	Portfolio	Portfolio			
+ 15.0%	1,035.00	103,500,000	(2,000,000)	11,500,000	101,500,000			
+ 7.5%	967.50	96,750,000	(2,000,000)	4,750,000	94,750,000			
0.0%	900.00	90,000,000	(2,000,000)	(2,000,000)	88,000,000			
- 7.5%	832.50	83,250,000	4,750,000	(2,000,000)	88,000,000			
- 15.0%	765.00	76,500,000	11,500,000	(2,000,000)	88,000,000			

Portfolio Management Strategies

A. Protective Put Options

Purchasing stock index put options permits a portfolio manager to hedge equity market risk by limiting downside risk while retaining upside potential.

The examples in this paper are based on hypothetical situations and should only be considered as examples of potential trading strategies. For the sake of simplicity, taxes, commission costs and other transaction costs, as well as tracking error, have been omitted from the examples that follow.

As a simple hypothetical, assume Fund X's portfolio roughly matches the composition of the Standard & Poor's 500 Stock Index (SPX) and that the SPX currently is at a level of 900.

Fund X's portfolio manager wants to establish a hedge to protect \$90 million of the fund's value. Assume that the fund manager determines the number of put option contracts to purchase by dividing the amount to be hedged (\$90,000,000) by the current aggregate SPX value (900 x \$100 or 90,000), *i.e.* $\frac{90,000,000}{90,000} = 1,000$

If the premium for an SPX put with a 900 strike price and 30 days until expiration is quoted at a price of 20, the total amount required for the purchase is \$2,000,000 (1,000 contracts x 20 premium x \$100 multiplier).

Possible Outcomes

Table 1 illustrates returns for the protective put position under differing market conditions at expiration:

• The Index Rises – At expiration, the puts have no value. However, in exchange for the cost of the puts (an insurance expense to the portfolio), the fund manager achieved the goal of establishing a hedge for a portion of the portfolio and did not incur the expenses of converting that portion of the assets to cash. Also, note that the portfolio retains

The figure below graphs index value versus potential gain/loss. Note that a protective put strategy is a combination of long put options and stock.





any dividends associated with holding the assets. Given the assumption of a correlation between the portfolio and the index, the value of the portfolio increases.

- The Index Falls If the puts are at-the-money or in-the-money, an increase in the value of the puts may approximate the loss in the portfolio's value. Tracking error will undoubtedly have an effect on the actual losses in portfolio value if the composition of the portfolio does not match the composition of the index. However, the protective puts limit the portfolio's downside and the portfolio retains any dividends associated with holding the assets. The cost of the puts is an insurance expense to the portfolio.
- The Index Remains Stable The puts have little or no value at expiration, resulting in a loss of the premium, which can be considered an insurance expense to the portfolio. This expense is, at least partially, offset by any dividends associated with holding the assets. The value of the portfolio remains approximately the same.

B. Long Call Options

Index option contracts can provide a portfolio manager with the market exposure necessary to participate in upside gains at a fraction of the cost of transacting in the index components.

A cash influx can pose a strategic dilemma for a portfolio manager. The classic "eat-well/sleep-well" problems posed by the conflicting desires for both high returns and investment security apply whenever a manager makes a determination regarding new or additional investments. By purchasing call options, a manager can preserve cash in declining markets and retained for various purposes, such as meeting redemptions or for investment in lower yield but essentially "riskless" instruments such as U.S. Treasury securities.

As a simple hypothetical, assume an additional \$900,000 of cash flows into Fund X's \$90 million portfolio. Instead of simply adding an additional 1 percent to its portfolio of common stock, the fund manager can purchase SPX call options. With the SPX at a level of 900, the 900 strike call with 30 days until expiration might be quoted at a premium of 25. The fund purchases 10 call options,

 $\frac{900,000}{90,000} = 10$ for a total cost of \$25,000 (10 x 25 x 100).



The call purchase provides exposure to the broad market in proportion to the \$900,000 influx, limits the downside risk to the cost of the calls, and the portfolio retains the remaining cash, in the amount of \$875,000.

C. Protective Collar

The protective collar strategy provides downside protection through the use of index put options but finances the purchase of the puts through the sale of short index call options, in effect trading away some upside potential.

By simultaneously purchasing put options and selling call options with differing strike prices and the same expiration (the strike of the put is lower than that of the call), a collar often can be established for little or no out-of-pocket cost. The index puts place a "safety net" under a diversified portfolio by protecting value in a declining market, "insurance" against the risk of a decline. The index call sale generates income to offset the purchase of the protective puts. It is important to note that, depending on the call strike price and the level of the index at expiration, assignment of the short call position may have the effect of limiting portfolio gains.

As a simple hypothetical, assume Fund X maintains a portfolio roughly matching the composition of the Standard & Poor's 500 Stock Index (SPX) and that the SPX is at 945. Fund X's manager wants to establish a collar to protect \$100 million of the fund's value from a market decline of greater than 7 percent for the next 30 days. The fund manager might determine the number of contracts needed to effect the collar by dividing the amount to be hedged (\$100,000,000) by the current aggregate SPX value (945 x \$100 or 94,500), *i.e.*

$\frac{100.000.000}{94,500} = 1,058.2$

Since fractional contracts cannot be purchased, assume the fund implements the SPX collar by selling 1,058 call options and purchasing 1,058 put options.

To establish the collar, the fund manager might select an SPX put contract with a strike price approximately 7 percent below the current aggregate SPX value. With the SPX at 945, an SPX put contract with a strike price of 880 and 30 days until expiration might be quoted at 4-5/8.

Next, the fund manager may choose to select a call contract currently quoted at a price sufficient to pay for the put purchase. With the SPX at 945, an SPX call contract with a strike price of 995 and 30 days until expiration might be quoted at 5-1/2.

This collar can be established for a net credit of \$92,575: \$581,900 received from sale of calls (1,058 call contracts sold x \$5.50 premium x \$100) less

\$489,325 paid for purchase of puts (1,058 put contracts purchased x \$4.625 premium x \$100).

Possible Outcomes for the Protective Collar

- The Index Rises The portfolio participates in any upside move up to the strike price of the calls. Above the 995 index level, losses from the short call position offset gains in the underlying portfolio. The puts expire worthless.
- The Index Falls The portfolio has protection on the downside. Below the 880 index level, gains from the long put position offset losses in the underlying portfolio. The calls expire worthless.
- The Index Remains Stable If the index remains between the put strike of 880 and the call strike of 995, the options expire. In this case, the total value of the portfolio is increased by the \$92,575 net premium received.

Financial Integrity of Exchange-Listed Options

The Options Clearing Corporation (OCC) issues all CBOE options contracts. OCC has a "AAA" credit rating from Standard & Poor's. OCC provides market and systemic safety to the listed securities options markets in the U.S. As the issuer of exchange listed options, OCC in effect becomes the buyer to every clearing member representing a seller and the seller to every clearing member representing a buyer.

OCC's role is supported by a three-tiered safeguard system. Qualifications for OCC membership are stringent to protect OCC and its clearing members. Each clearing member applicant is subject to a thorough initial assessment of its operational capability, the experience and competence of its personnel, and its financial condition in relation to predefined standards. After tough membership standards, OCC's second line of defense against clearing member default is member margin deposits. OCC currently holds billions in aggregate clearing member margin deposits. The third line of defense is the clearing members' contributions to the clearing fund. A member's clearing fund deposit is based upon its options activity and is computed monthly. OCC's clearing fund totals hundreds of millions of dollars.

In addition to the OCC safeguards, the CBOE has adopted its own rules and regulations to better ensure a fair and orderly marketplace. Both the CBOE and OCC operate under the jurisdiction of the SEC and are obliged to follow federal securities laws and regulations.

All brokerage firms conducting public options business must furnish options customers with the options disclosure document, *Characteristics and Risks of Standardized Options*. Firms are also obligated to establish each customer's suitability for options trading to ensure that all options recommendations made to customers are suitable in light of their investment objectives, financial situation and needs.

Registered representatives must pass a registration exam, the Series 7 exam, that tests their knowledge of the securities industry, options, federal law and regulations, and exchange rules. Branch office managers require more training, experience and must pass a more advanced exam, the Series 8 exam, concerning the supervision of brokers. Options advertising and educational material provided to customers must be prepared in compliance with certain rules and regulations before dissemination, and must be approved by the firm's Compliance Department and an options exchange of which the firm is a member.

Overview of Legal and Taxation Issues Related to Options Use by Mutual Funds

Open-end, managed, registered investment companies, commonly referred to as mutual funds, are governed by several securities law statutes, the most important of which is the Investment Company Act of 1940¹ ("1940 Act"), concerned with the activities, structure and management of the investment company. Other pertinent securities law statutes include the Securities Act of 1933 ("1933 Act") and the Securities Exchange Act of 1934² ("1934 Act"), regulating the sale of securities; and the Investment Advisers Act of 1940,³ regulating the business practices of investment advisers.⁴

As explained more fully below, the 1940 Act imposes several requirements on mutual funds which specifically relate to investing in options,⁵ including: (i) disclosure and the investment policies of a mutual fund, (ii) the issuance of senior securities and the use of leverage, and (iii) the maintenance of options by a custodian.

A. Disclosure Requirements

Mutual funds and the securities they issue are required to be registered with the Securities and Exchange Commission ("SEC") pursuant to both the 1933 Act and the 1940 Act. Specifically, Section 8 of the 1940 Act requires a mutual fund to file a registration statement disclosing both its investment objectives and policies with the SEC.⁶ The SEC has designed one form of registration statement (the "Form N1-A") that satisfies the requirements of both the 1940 Act and the 1933 Act.

The 1933 Act requires mutual funds to distribute a current prospectus that contains the same information as the registration statement to shareholders and prospective shareholders.⁷ The fund's investment objectives and policies must also be disclosed in the prospectus. If the fund intends to invest in options, the fund must disclose this fact to potential investors. Disclosure made in a fund's prospectus concerning options risk depends on the extent to which the mutual fund is engaged in options activities.⁸

⁴ The application of state securities laws ("blue sky laws") to mutual funds has largely been preempted by the National Securities Markets Improvement Act (effective July 8, 1997). However, to the extent state blue sky laws contain restrictions regarding notice and the payment of fees, these restrictions have not been preempted. See also footnote 20 below.

 5 *E.g.*, although the 1940 Act restricts a mutual fund from holding illiquid assets in excess of 15% of its net assets (10% in the case of a money market fund), this restriction has no application to listed options which can be bought and sold in exchange markets. Inv. Co. Act. Release No. 18612 (March 12, 1992). This restriction could limit the ability of a mutual fund to deal in privately negotiated, customized options, which are viewed as illiquid assets.

6 15 U.S.C. § 80a-8.

 7 A statement of additional information about the fund must be available to shareholders upon request. U.S. SEC Form N1-A, Part B.

¹ The 1940 Act contains requirements regarding such areas as the size and capital structure of investment companies; contracts for advisers and underwriters; dividends and other distributions; redemption of shares; and fiduciary duties of officers, directors and underwriters. 15 U.S.C. § 80a-1 *et seq.*

 $^{^2}$ The 1934 Act regulates securities exchanges and, therefore, has a direct effect on those companies whose stock is traded on an exchange. See 15 U.S.C. § 78a *et seq*. The 1934 Act also regulates the business practices of persons selling securities, including mutual fund shares, imposing prohibitions against the use of manipulative or deceptive sales practices. The 1934 Act applies equally to persons engaged in the sale of mutual fund shares whether or not the fund engages in options activities.

³ The Investment Advisers Act regulates the business practices of mutual fund investment advisers, as well as other categories of investment advisers. *See* 15 U.S.C. § 80b-1 *et seq.* There is nothing in this Act specially directed to the advisers of mutual funds that engage in options activities, except that these advisers would have to be capable of understanding and managing the risks of any options activities in which they engage on behalf of the funds whose portfolios they manage.

⁸ If not more than 5% of a fund's net assets is at risk in options positions, the prospectus need only identify the nature of the activities engaged in without elaboration. However, because the SEC has recently given special attention to the adequacy of fund prospectus disclosure regarding derivatives generally, and because it is possible for a fund to exceed the 5% threshold simply on account of changes in market values, mutual funds intending to engage in options activities should include appropriate risk disclosure in their prospectuses even if they do not expect to exceed the 5% threshold.

The 1940 Act also requires a fund to be able to price its investment securities on a daily basis.⁹ This requirement is not a problem when holdings of investment securities consist of exchange-listed options. Because exchange-listed options are marked-to-market on a daily basis by the Options Clearing Corporation, current values are available

B. Investment Policy

for such listed securities.

With regard to investment policy, mutual funds generally have (i) one or more fundamental investment objectives and policies, which can only be changed pursuant to a majority vote of its shareholders,¹⁰ (ii) one or more non-fundamental investment objectives and policies, which can be changed by the fund's board of directors or trustees, and (iii) a number of fundamental and non-fundamental investment restrictions.

A mutual fund's objectives, policies and restrictions, stated in the fund's prospectus and statement of additional information, must be consistent with the fund's proposed use of options. If a mutual fund has an investment policy that precludes the use of options, the fund must obtain shareholder approval before engaging in options transactions.

C. Issuance of Senior Securities and Use of Leverage

A basic purpose of the 1940 Act is to limit the extent to which a mutual fund can use leverage in its investing activities. In that regard, Section 18(f) of the 1940 Act generally prohibits mutual funds from issuing a "senior security,"¹¹ which is defined to include an obligation or instrument constituting a security and evidencing indebtedness.¹² This prohibition was designed to "limit increases in the speculative character of junior securities issued by investment companies."¹³

The SEC has concluded that the writing of <u>uncovered</u> options creates "leverage" and increases the speculative character of the junior securities issued by a fund. Because the prohibition against senior securities in Section 18 was designed to limit such increases, the writing of <u>uncovered</u> options violates the spirit of Section 18.

Nonetheless, in Investment Company Act Release No. 10666 (April 18, 1979) and Release No. 7221 (June 9, 1972), and subsequent SEC no-action letters, the SEC established two methods by which a mutual fund can limit the leverage created by writing options and avoid a violation of Section 18. The mutual fund must either (1) hold the underlying security or an offsetting option position, *i.e.*, "cover" the option position, or (2) set aside in a segregated, custodial account consisting of cash, U.S. government securities, or high-grade debt securities in an amount at least equal in value to the optioned securities, *i.e.*, "segregation of assets."¹⁴

• SEC no-action letters consistently state that it is satisfactory for a mutual fund to satisfy either the "segregation of assets" requirement or the "cover" requirement when writing listed options.¹⁵

⁹ 17 C.F.R. §270.22(c-1)(a).

¹⁰ 15 U.S.C. § 80a-13(a)(3).

 $^{^{11}}$ 15 U.S.C. § 80a-18(f). A mutual fund may issue "senior securities" in connection with certain bank borrowings where there is asset coverage of at least 300%. 15 U.S.C. § 80a-18(f)(1).

 $^{^{12}}$ Section 18(g) specifically defines "senior security" to include any "bond, debenture, note, or similar obligation or instrument constituting a security and evidencing indebtedness." 15 U.S.C. § 80a-18(g).

¹³ Inv. Co. Act. Release No. 10666 (April 18, 1979).

¹⁴ See Securities Trading Practices of Registered Investment Companies, Inv. Co. Act. Release No. 10666 (avail. April 18,1979); <u>Dreyfus</u> <u>Strategic Investing and Dreyfus Strategic Income</u> (avail. June 22, 1987); see also <u>Merrill Lynch Asset Management, L.P.</u> (avail. July 2, 1996); <u>Robertson Stephens Investment Trust</u> (avail. August 24, 1995).

¹⁵ <u>Merrill Lynch Asset Management, L.P. (avail. July 2, 1996); Robertson Stephens Investment Trust</u> (avail. August 24, 1995); <u>Dreyfus</u> <u>Strategic Investing and Dreyfus Strategic Income</u> (avail. June 22, 1987).

• In addition, in <u>Hutton Options Trading L.P.</u> the SEC concluded that a mutual fund can meet the "segregation of assets" and/or "cover" requirements while conducting more complicated option strategies, including debit call and put spreads, credit call and put spreads, and calendar and time spreads.¹⁶

D. Maintenance by Custodian

Section 17(f) of the 1940 Act requires a mutual fund to maintain its securities and similar investments in the custody of: (i) a qualified custodian bank, (ii) a member of a national securities exchange, or (iii) in its own custody in accordance with SEC rules and regulations. The purpose of this requirement is to protect investors against the risk of loss of the fund's assets. Since listed options are uncertificated and, thus, cannot be physically maintained, the SEC has granted special relief from these requirements to mutual funds that engage in options activities.

Two SEC no-action letters directly address the issue of a fund's maintenance of options. These letters indicate that the SEC believes that the procedures and practices established by the CBOE and the OCC for the maintenance of options and underlying securities are sufficient to satisfy Section 17's custodian rule.

• Bank of New York (avail. March 16, 1977). No-action letter, issued to a mutual fund's custodian bank, dealt with call options covered by the fund's ownership of the underlying securities. SEC staff concluded that, even though no physical evidence of the beneficial interest in covered call options had been maintained, staff would not recommend enforcement action for violations of Section 17 if the fund maintained the securities covering the call options at the Bank of New York or at Depository Trust Company, the bank's authorized securities depository.

• Institutional Equity Fund (avail. Feb. 27, 1984). SEC staff concluded that the mutual fund's stock index options could be maintained in book-entry form at the OCC without violating Section 17.¹⁷

Lastly, the SEC has addressed the issue of how margin deposits in certain options transactions must be maintained to satisfy Section 17.¹⁸ The SEC has concluded that Section 17 is not violated as long as a mutual fund broker maintains the margin deposits in a segregated account at a custodian bank. The margin deposits are held by the custodian and pledged to the broker in accordance with exchange rules.¹⁹

E. Tax Code Requirements

In addition to the securities laws discussed above, tax laws also have an impact on mutual funds. Specifically, provisions of Subchapter M of the Internal Revenue Code (the "Code") provide alternative taxation provisions for qualifying mutual funds. If certain conditions are met, a mutual fund may be treated as a regulated investment company ("RIC") under Subchapter M. Pursuant to the provisions of Subchapter M, RICs may avoid corporate taxation. Under a conduit theory, RICs distribute investment income and capital gains to their shareholders without first paying tax on them. The shareholders are treated substantially as if they directly held the securities in the fund's investment portfolio.

Although RICs have always been permitted to trade options, the attractiveness of such trading has been limited by prohibitions in the Code. The Taxpayer Relief Act of 1997 (the "1997 Act") offers more flexibility to managers of RICs who desire to use

¹⁶ See <u>Hutton Options Trading, L.P.</u> (avail. February 2, 1989).

¹⁷ Under Section 17(f)of the 1940 Act and Rule 17f-4 thereunder, subject to certain restrictions, a mutual fund's custodian may deposit the fund's securities in a "clearing agency which acts as a securities depository." In <u>Institutional Equity Fund</u>, the mutual fund argued that OCC should be treated as a "securities depository" within the meaning of Rule 17f-4 and that book-entry procedures followed by OCC and the custodian satisfied Rule 17f-4.

¹⁸ In the case of a non-mutual fund investor, margin deposits in certain options transactions normally are held by the investor's broker.

¹⁹ See <u>The Piedmont Income Fund, Inc.</u>, Inv. Co. Act. Release No. 142984 (avail. Nov. 16, 1984).

options in achieving the investment objectives of the RIC. The 1997 Act significantly eases the burdens of RICs by repealing Section 851(b)(3) of the Code, commonly known as the "short-short" rule.²⁰ Section 851(b)(3) of the Code provided that a corporation could not be considered a mutual fund unless less than thirty percent of the corporation's gross income was derived from the sale or disposition of various financial instruments, including stock and securities, options, futures and forward contracts, as well as foreign currencies, held for less than three months. With the repeal of this Section of the Code, the holding period for assets is no longer relevant when determining whether a corporation qualifies as a mutual fund. To qualify as a mutual fund, however, a corporation still must comply with the income and asset tests of Section 851(b).

This change to the Code is effective as of a mutual fund's next fiscal year following August 5, 1997. In other words, if the mutual fund's fiscal year begins on September 1, 1997, the Act is effective for the fund on September 1, 1997. The repeal of Code Section 851(b)(3) will not only ease the administrative burden faced by mutual funds, but this change will also provide mutual funds greater flexibility in the selection of hedging, trading and investment strategies and should increase over-all market liquidity. The repeal of this provision will allow mutual funds to engage in new trading strategies involving short term trades without jeopardizing the corporation's status as a mutual fund.

Although the "short-short" rule was repealed, a mutual fund, which is registered under the 1940 Act and which files an election to be a RIC, must continue to meet the income and assets tests of Section 851(b).²¹

The foregoing is provided only as general information and should not be relied on as definitive legal or tax advice. A mutual fund contemplating trading options should consult its own counsel, tax advisor and accountants before making a final decision with respect to such a program.

²⁰ California entiitles should take note that California previously incorporated Section 851(b)(3) of the Code into state law. Thus, although Section 851(b)(3) of the Code has been repealed, California requires additional state action to conform state interpretation to federal law. Proposed 1998 legislation in California will provide conformity to the recently enacted 1997 Act and eliminate Section 851(b)(3) of the Code for state purposes. This legislation would apply retroactively to August 5, 1997, the effective date of the 1997 Act. *See* California Senate Bill No. 519, authored by Senator Lockyear, amended February 13, 1998.

²¹ Specifically, a RIC must meet the following conditions:

⁽¹⁾ at least 90% of the fund's gross income must be derived from dividends, interest, payments for securities loans, gains from the sale or other disposition of stock or securities or foreign currencies, or certain other income derived with respect to the fund's investing in stock, securities or currencies (which includes gains from options transactions) (I.R.C. § 851(b)(2));

⁽²⁾ No more than 25% of the value of the fund's total assets may be invested in the securities of any one issuer or two or more issuers, if that fund owns 20% or more of the voting power, if those entities are engaged in similar or related businesses. Government securities and the securities of other RICs are not subject to the 25% restriction (I.R.C. \S 851(b)(4)(B)); and

⁽³⁾ At least 50% of the value of the fund's total assets must be represented by (i) cash and cash items, (ii) government securities and securities of other RICs, and (iii) other securities. (I.R.C. \$ 851(b)(4)(A)). In general, for a given security to qualify for the group "other securities," the fund's investment in that security must account for no more than 5% of the fund's total asset value and no more than 10% of the outstanding voting securities of the issuer. I.R.C. \$ 851(b)(4)(A).

Appendix I: Glossary of Options Terms

American-style Option: An option contract that may be exercised at any time after purchase and prior to the expiration date. Most exchange-traded options are American-style.

Assignment: The receipt of an exercise notice by an option writer (seller) that obligates him to sell (in the case of a call) or purchase (in the case of a put) the underlying security at the specified strike price.

At-the-money: An option is at-the-money if the strike price of the option is equal to the market price of the underlying security.

Call: An option that gives the holder the right to **buy** an underlying instrument, such as a stock, or an index value, at a specified price for a certain, fixed period of time.

Class of options: Option contracts of the same type (call or put) and style (American, European or Capped) that cover the same underlying security.

Clearing Corporation (or **Clearing House**): The business entity through which transactions executed on the floor of an exchange are settled using a process of matching purchases and sales.

Clearing Member: A member firm of the Clearing Corporation.

Closing purchase: A transaction in which the purchaser's intention is to reduce or eliminate a short position in a given series of options.

Closing sale: A transaction in which the seller's intention is to reduce or eliminate a long position in a given series of options.

Collar: A contract providing for both a cap (ceiling) and floor (minimum).

Covered call option writing: A strategy in which one sells call options while simultaneously owning an equivalent position in the underlying security.

Derivative security: A financial security whose value is determined in part from the value and characteristics of another security, the underlying security.

Equity options: Options on shares of an individual common stock.

European-style options: An option contract that may be exercised only during a specified period of time just prior to its expiration.

Exercise: To invoke the right under which the holder of an option is entitled to buy (in the case of a call) or sell (in the case of a put) the underlying security.

Exercise price: (See Strike price)

Exercise settlement amount: The difference between the exercise price of the option and the exercise settlement value of the index on the day an exercise notice is tendered, multiplied by the index multiplier.

Expiration cycle: An expiration cycle relates to the dates on which options on a particular underlying security expire. Options on a given security, other than LEAPS[®], will be assigned to one of three quarterly cycles.

Expiration date: Date on which an option and the right to exercise it, cease to exist.

Hedge: A conservative strategy used to limit investment loss by effecting a transaction which offsets an existing position.

Holder: The purchaser of an option.

In-the-money: A call option is in-the-money if the strike price is less than the market price of the underlying security. A put option is in-the-money if the strike price is greater than the market price of the underlying security.

Intrinsic value: The amount by which an option is in-the-money (see above definition).

LEAPS[®]: Long-term Equity Anticipation Securities, or LEAPS[®], are long-term stock or index options. LEAPS[®], like all options, are available in two types, calls and puts, with expiration dates up to three years in the future.

Long position: A position wherein an investor's interest in a particular series of options is as a net holder (i.e., the number of contracts bought exceeds the number of contracts sold).

Margin requirement (for options): The amount an uncovered (naked) option writer is required to deposit and maintain to cover a position. The margin requirement is calculated daily.

Opening purchase: A transaction in which the purchaser's intention is to create or increase a long position in a given series of options.

Opening sale: A transaction in which the seller's intention is to create or increase a short position in a given series of options.

Open interest: The number of outstanding options or futures contracts in the exchange market or in a particular class or series. Refers to unliquidated purchases or sales.

Option: The right, but not the obligation, to buy or sell an underlying instrument, such as a stock, a futures contract or an index value, at a specified price for a certain, fixed period of time.

Out-of-the-money: A call option is out-of-themoney if the strike price is greater than the market price of the underlying security. A put option is outof-the-money if the strike price is less than the market price of the underlying security.

Premium: The price of an option contract, determined in the competitive marketplace, which the buyer of the option pays to the option writer for the rights conveyed by the option contract.

Put: An option contract that gives the holder the right to **sell** an underlying instrument, such as a stock, a futures contract or an index value, at a specified price for a certain, fixed period of time.

Series: All option contracts of the same class that also have the same unit of trade, expiration date and strike price.

Short position: A position wherein a person's interest in a particular series of options is as a net writer (i.e., the number of contracts sold exceeds the number of contracts bought).

Strike price: The stated price per share for which the underlying security may be purchased (in the case of a call) or sold (in the case of a put) by the option holder upon exercise of the option contract.

Time value: The portion of the option premium that is attributable to the amount of time remaining until the expiration of the option contract. Time value is whatever value the option has in addition to its intrinsic value.

Type: The classification of an option contract as either a put or a call.

Uncovered call writing: A short call option position in which the writer does not own an equivalent position in the underlying security represented by his option contracts.

Uncovered put writing: A short put option position in which the writer does not have a corresponding short position in the underlying security or has not deposited, in a cash account, cash or cash equivalents equal to the exercise value of the put.

Underlying security: The security subject to being purchased or sold upon exercise of the option contract.

Volatility: A measure of the fluctuation in the market price of the underlying security. Mathematically, volatility is the annualized standard deviation of returns.

Writer: The seller of an option contract.

Appendix II: Sample Language from Mutual Fund Prospectuses

Vanguard Index Trust Prospectus, March 28, 1997

The Portfolios may use options "to keep cash on hand to meet shareholder redemptions or other needs while simulating full investment in stocks." The Portfolios will<u>not</u> use options "for speculative purposes or as leveraged investments that magnify the gains or losses of an investment."

Fidelity Magellan Fund (Fidelity Management & Research) Prospectus, June 20, 1997

Adjusting Investment Exposure

The fund can use various techniques to increase or decrease its exposure to changing security prices, interest rates, currency exchange rates, commodity prices, or other factors that affect security values. These techniques may involve derivative transactions such as buying and selling options and futures contracts, entering into currency exchange contracts or swap agreements, and purchasing indexed securities.

FMR can use these practices to adjust the risk and return characteristics of the fund's portfolio of investments. If FMR judges market conditions incorrectly or employs a strategy that does not correlate well with the fund's investments, these techniques could result in a loss, regardless of whether the intent was to reduce risk or increase return. These techniques may increase the volatility of the fund and may involve a small investment of cash relative to the magnitude of the risk assumed. In addition, these techniques could result in a loss if the counterparty to the transaction does not perform as promised. Spartan Market Index Fund (Fidelity Management & Research) Prospectus, June 20, 1997

Adjusting Investment Exposure

The fund can use various techniques to increase or decrease its exposure to changing security prices or other factors that affect security values. These techniques may involve derivative transactions such as buying and selling options and futures contracts, entering into swap agreements, and purchasing indexed securities.

Fidelity Management & Research (FMR) can use these practices in its effort to track the return of the S&P 500. If FMR judges market conditions incorrectly or employs a strategy that does not correlate well with the fund's investments, these techniques could result in a loss, regardless of whether the intent was to reduce risk or increase return. These techniques may increase the volatility of the fund and may involve a small investment of cash relative to the magnitude of the risk assumed. In addition, these techniques could result in a loss if the counterparty to the transactions does not perform as promised.

Value Line Asset Allocation Fund, Inc. Prospectus, August 1, 1996

The Fund may also write covered call options on its portfolio securities, invest in repurchase agreements and in financial futures contracts and related options...

Options on Securities

The fund may purchase and write listed put and call options on equity and debt securities when deemed appropriate and consistent with the Fund's investment objective. The fund will engage in option transactions to realize profits through the receipt of premiums, to protect unrealized gains or to avoid realizing losses and to hedge securities positions held by the Fund.

The fund will write call options only if they are secured. A call option is "secured" if the Fund (a) owns the securities underlying the call, (b) holds a call at the same exercise price for the same exercise period and on the same securities as the call written, or (c) establishes a segregated account consisting of cash, U.S. Government securities or other high-grade debt securities equal to the fluctuating market value of the optioned securities. The segregated account will be adjusted daily to reflect changes in the market value of the optioned securities.

The fund will realize a loss if the amount paid to purchase the call option with respect to the stock is greater than the premium received for writing the option.

The fund will write put options only if they are secured. A put option is "secured" if the Fund holds a put at the same exercise price, for the same exercise period and on the same underlying security as the put written, or if the fund places cash, U.S. Government securities or other high-grade debt securities with a value equal to the exercise price of the put in a segregated account with the Fund's custodian. The segregated account will be adjusted daily to reflect the current value of the put.

The Fund may enter into "closing purchase transactions" or "closing sale transactions" to terminate its obligations with respect to an option prior to the expiration of the option. As the writer of an option, the fund may effect a closing purchase transaction by buying an option of the same series and exercise price as the option previously written. As the purchases of an option, the fund may liquidate its position by selling the option previously purchased.

The Fund may realize a profit or loss upon entering into a closing purchase or sale transaction. The Fund will realize a profit if the cost of a closing purchase transaction is less than the premium received upon writing the original option and will incur a loss if the cost of a closing purchase transaction exceeds the premium received upon writing the original option. Whether the Fund realizes a profit or loss on a closing sale transaction will depend on whether the amount received in the closing sale transaction is more or less than the premium the Fund initially paid for the original option plus the related transaction costs.

The Fund will not (a) sell listed put or call options to the extent that, immediately after a sale the aggregate value of the securities underlying the calls or obligations securing the puts would exceed 25% of the Fund's net assets or (2) purchase listed put or call options if, immediately after a purchase, the premiums paid for all the options owned at that time would exceed 10% of the Fund's net assets.

Stein Roe Mutual Funds—International Fund, Prospectus, February 3, 1997

Portfolio Investments and Strategies, Derivatives

Consistent with its objective, International Portfolio may invest in a broad array of financial instruments and securities, including conventional exchangetraded and non-exchange-traded options, futures contracts, futures options, forward contracts, securities collateralized by underlying pools of mortgages or other receivables, floating rate instruments, and other instruments that securitize assets of various types ("Derivatives")...Derivatives are most often used to manage investment risk or to create an investment position indirectly because they are more efficient or less costly than direct investment. They also may be used in an effort to enhance portfolio returns.

The successful use of Derivatives depends on the Adviser's ability to correctly predict changes in the levels and directions of movements in currency exchange rates, security prices, interest rates and other market factors affecting the Derivative itself or the value of the underlying asset or benchmark. In addition, correlations in the performance of an underlying asset to a Derivative may not be well established. Finally, privately negotiated and overthe-counter Derivatives may not be as well regulated and may be less marketable than exchange-traded Derivatives. For additional information on Deriva-

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tives, please refer to the Statement of Additional Information.

In seeking to achieve its desired investment objective, provide additional revenue, or to hedge against changes in security prices, interest rates or currency fluctuations, International Portfolio may: (1) purchase and write both call options and put options on securities, indexes and foreign currencies; (2) enter into interest rate, index and foreign currency futures contracts; (3) write options on such futures contracts; and (4) purchase other types or forward or investment contracts linked to individual securities, indexes or other benchmarks. International Portfolio may write a call or put option only if the option is covered. As the writer of a covered call option, International Portfolio foregoes, during the option's life, the opportunity to profit from increases in market value of the security covering the call option above the sum of the premium and the exercise price of the call. There can be no assurance that a liquid market will exist when International Portfolio seeks to close out a position. In addition, because futures positions may require low margin deposits, the use of futures contracts involves a high degree of leverage and may result in losses in excess of the amount of the margin deposit.

Appendix III: Overview of CBOE Products

	S&P 100 [®] Index	S&P 500 [®] Index	Dow Jones Industrial Average sm	Russell 2000 [®] Index	Nasdaq-100 Index®	CBOE trades options on the following: Equities & LEAPS®				
Symbol	OEX® (OEW and OEZ are used for additional series)	SPX TM (SPB, SPQ, SPZ and SXB are used for additional series)	DJX	RUT (RUZ is used for additional series)	NDX SM (NDU and NDZ are used for additional series)	S&P 100 Index [®] LEAPS S&P 500 Index [®] LEAPS S&P 500 Index Long-Dated Options FLEX [®] Options Equity FLEX Index FLEX Down Longe Industrial				
Underlying	Capitalization- weighted index of 100 stocks	Capitalization- weighted index of 500 stocks	Price-weighted index of 30 stocks. Options are based on 1/100th of the DJIA level	Capitalization- weighted index of 2000 stocks	Modified capitalization- weighted index of 100 stocks	Average SM (DJX) & LEAPS The Dow 10 Index SM (MUT) Dow Jones Internet Commerce Index SM (ECM) Dow Jones REIT Index (DJR)				
Multiplier			\$100			Average SM & LEAPS Dow Jones Utility				
Exercise Style	American	European	European	European	European	Average SM & LEAPS Morgan Stanley Multinational Company Index SM				
Expiration Months	4 near-term months plus 1 additional month from the March quarterly cycle	3 near-term months plus 3 additional months from the March quarterly cycle	3 near-term months plus 3 additional months from the March quarterly cycle	Up to 3 near- term months plus 3 additional months from the March quarterly cycle	Up to 3 near- term months plus 3 additional months from the March quarterly cycle	Company Index [™] Russell 2000 [®] Index & LEAPS S&P 500/BARRA Growth Index S&P 500/BARRA Value Index S&P SmallCap 600 Index Latin 15 Index [™] Index				
2000 Average Daily Volume	61,530	87,286	14,933	2,998	9,172	CBOE Mexico Index & LEAPS Nikkei 300 [®] Index & LEAPS NYSE Composite Index [®] CBOE Automotive Index				
2000 Year-End Open Interest	170,183	1,365,342	223,569	21,489	68,108	CBOE Computer Software Index CBOE Gaming Index CBOE Gold Index CBOE Internet Index & LEAPS				
Trading Hours	Trading Hours Generally 8:30 a.m 3:15 p.m. Chicago time. In 2001, the CBOE plans to begin trading certain index options in a pre-opening extended hours session on the CBOEdirect screen-based trading system. CBOE Oil Index & LEAPS CBOE Technology Index 8: I FAPS									
	CBOE Annual Options Volume GSTI™ Composite Index GSTI Hardware Index GSTI Hardware Index									
	R	ecord volume o	f 326.4 million optio	ns in 2000		GSTI Multimedia Networking Index				
400,00	0,000	Index Onti	ons			GSTI Semiconductor Index				
300,00	0,000 -	Equity Opti	ions			GSTI Services Index GSTI Software Index S&P® Banks Index				
200,000,000 -										
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www.cboe.com institutional@cboe.com										

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Options are not suitable for every investor. For more information consult your investment advisor. Prior to buying and selling options, a person must receive a copy of *Characteristics and Risks of Standardized Options* which is available from The Options Clearing Corporation (OCC) by calling 1-800-OPTIONS, or by writing to the OCC at 440 S. LaSalle, Suite 2400, Chicago, Illinois 60605.

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