CBOE
CHICAGO BOARD OPTIONS EXCHANGE

High-net-worth Investors & Listed Options

Portfolio Management Strategies for Affluent Investors, Family Offices, and Trust Companies

Exploring ways to hedge, monetize and diversify a portfolio by using listed options.

CBOE Investor Series — Paper No. 6

High-net-worth Investors & Listed Options:
Portfolio Management Strategies

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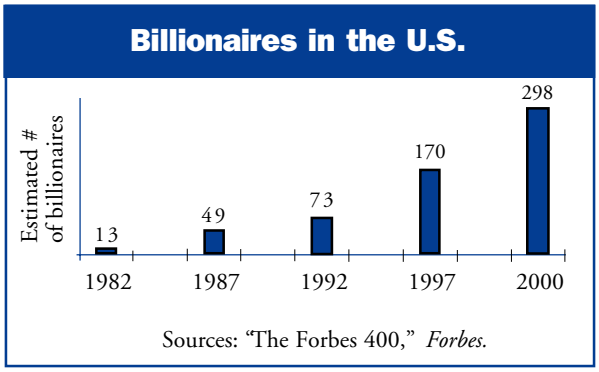
I. Introduction

With the tremendous growth in the number of high-net-worth investors in the United States over the past couple decades, various investment tools have been utilized to help these investors meet their financial goals –goals that often include preservation and growth of capital, and deferral and minimization of taxes. This paper will explore some of the many ways in which a very flexible investment tool –listed options –can help high-net-worth investors pursue their financial goals.

Growth in High-net-worth Market

As shown in the nearby chart, the estimated number of U.S. billionaires increased about twenty-fold in the period from 1982 to 2000. The wealthiest one per cent of Americans control about one-third of the nation's wealth.[1] It has been estimated that people in the "baby boom" generation may inherit $10 trillion over the coming decades.[2]

Among the reasons given for the increase in high-net-worth households since 1982 are (1) the bull market in stocks, which has seen the Dow Jones Industrial Average rise from an 822 level in March 1982; (2) the wave of leveraged buyouts, public offerings, corporate acquisitions and restructuring; and (3) the granting of stock options to employees by corporations.[3]



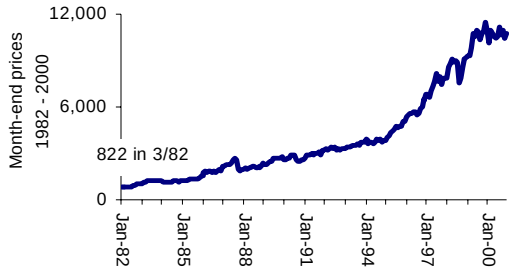
Numerous individuals and organizations, including family offices, trust companies, brokerage firms, banks and registered investment advisors serve the financial needs of high-net-worth investors.[4]

Possible Benefits of Using Listed Options

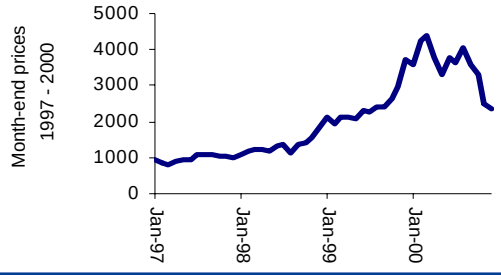
This paper will cover many of the possible benefits of using listed options in managing high-net-worth portfolios, including:

[1] Ronald Steel, "The Bad News," The New Republic, Feb. 10, 1997, p. 27. See also, "The Forbes 400," *Forbes*, Oct. 11, 1999, p. 169.
[2] John Dodsworth, "Risk Management and High-net-worth Clients," *The CPA Journal*, Sept. 1997, p. 14; Mercedes Cardona, "Managers Relying on Trust," *Pensions and Investments*, Aug. 5, 1996, p. 50. One study indicated that the number of U.S. households with a net worth of more than $5 million rose from 90,000 in 1994 to 590,000 in 1999. "Rich Investors Receive Invitation To Come Mix With Rockefellers," *Wall Street Journal*, March 1, 2000.
[3] See Everett Mattlin, "Rich Pickings," *Institutional Investor*, June 1993, p. 55.
[4] Laura Jereski, "'Family Offices' for Rich Are Booming," *Wall Street Journal*, March 6, 1996, p. C1; Everett Mattlin, "Rich Pickings," *Institutional Investor*, June 1993, p. 55.

Dow Jones Industrial Average



Nasdaq 100



- Deferred or lower income taxes,
- Lower transaction costs for SEC-regulated securities cleared by a triple-A rated clearing organization,
- Less risk with more diversification, and
- More investment flexibility.

Portfolio Concentrated in One Stock

Although this paper will cover the risk management strategies for high-net-worth investors in general, much of the paper is focused on the risks faced by thousands of high-net-worth entrepreneurs and employees of high-growth companies who must cope with the situation of having most of their net worth attributed to one stock that may be restricted and may have a low cost basis.[5] One article noted:

> Many affluent investors are faced with the challenge of holding a concentrated position of a single stock with a low tax basis. . . . At some point, diversification of the holding becomes desirable either from a personal perspective (increased income) or as a risk management maneuver ("too many eggs in one basket"). However, income taxes stand to claim a significant portion of the holding. . . . The investor would like to accomplish four primary objectives:

- **Hedge.** The investor wants to be hedged against a decrease in value of the stock.
- **Defer Capital Gains Tax.** The investor does not want to trigger a taxable event resulting in the immediate recognition of a capital gains tax. Also, the investor would like the stock to receive a "step-up" in basis in his or her estate upon his or her death.
- **Gain Liquidity.** The investor would like the ability to "monetize" the stock position (e.g., currently receive in cash a substantial portion of the market value of the stock position) at the lowest possible cost.
- **Diversify.** The investor might reinvest some or all of the cash to diversify the portfolio.[6]

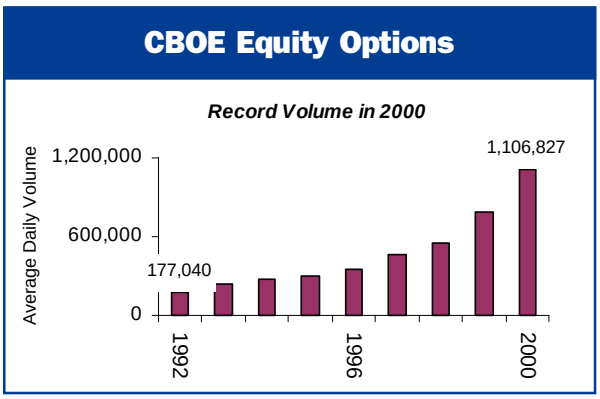
Listed options can help high-net-worth investors pursue the four above objectives.

Stocks, Listed Options and Tax Consequences

Numerous articles have noted the fact that income taxes can be a sizable drag on the performance of investment portfolios of taxable investors, and that these investors should bear in mind the tax conse-

[5] *See* Nancy L. Jacob, "After-tax Asset Allocation and the Diversification of Concentrated Low Cost-Basis Holdings: A Case Study," *The Journal of Private Portfolio Management*," Spring 1998, p. 55.

[6] Thomas Boczar and Mark Fichtenbaum, "Stock Concentration Risk Management Strategies." *Trusts & Estates*, June, 1996, pg. 34.



quences of their investment decisions.[7] Taxable portfolios can incur unwanted large realized capital gains if there is large turnover (purchases and sales) of stocks in the underlying portfolio. One way to minimize taxes is to use an "overlay" strategy, which leaves the underlying portfolio intact and uses overlay tools such as options to take an investment position (which often is a hedging or contrary position to the underlying portfolio).[8] Options strategies may have advantages over the outright sale of stock in that options can aid an investor who would like to: (1) avoid the triggering of a taxable event resulting in the immediate recognition of a capital gains tax, and (2) have the stock to receive a "step-up" in basis in his or her estate upon his or her death.[9]

Growth in Listed Options Trading

Annual trading volume in stock options has grown to record levels in recent years as individual and institutional investors have increased their use of these products to manage various risks.

More banks and other financial services firms are offering options and other sophisticated investment strategies to wealthy clients, reflecting the "view that some clients may be eager to protect against a possible downturn in the stock market."[10]

II. Portfolio Management Strategies

High-net-worth investors may consider numerous types of strategies that use exchange-listed options.

A high-net-worth investor with stock concentration concerns could consider several strategies, including:

- Hedge the stock with put options,
- Hedge the stock with a collar (long puts for protection plus short calls for income),[11]
- Diversifying with stock index options,
- Covered call writing for income.

A high-net-worth investor with a diversified portfolio could consider several strategies, including:

- Hedge the portfolio with protective stock index put position,[12]

[7] *See* Laurence Siegel and David Montgomery, "Stocks, Bonds and Bills after Taxes and Inflation," *Journal of Portfolio Management*, Winter 1995, p. 17; William Fender, "Benefits of Tax Deferral and Stepped-up Basis Post-TRA 1997," *The Journal of Investing*, Summer 1998, p. 77; David Pear, "Winning Is Easy With Tax-aware Investing," *Trusts and Estates*, Mar. 1998, p. 30; Robert D. Arnott, A.L. Berkin, and Jia Ye, "How Well Have Taxable Investors Been Served During the 1990's?" *Journal of Portfolio Management*, Summer 2000, p. 84.

[8] R. H. Jeffrey and Robert Arnott, "Is Your Alpha Big Enough to Pay Its Taxes?" *Journal of Portfolio Management*, 1993, p. 15.

[9] Thomas Boczar and Mark Fichtenbaum, "Stock Concentration Risk Management Strategies." *Trusts & Estates*, June, 1996, pg. 34. *See also* Thomas J. Boczar, "Stock Concentration Risk Management After TRA 97," *Trusts and Estates*, March 1998.

[10] Aaron Lucchetti, "Private Banks Tout More Aggressive Strategies," *Wall Street Journal*, July 2, 1997, p. C1. *See also* William Fender, "Benefits of Tax Deferral and Stepped-up Basis Post-TRA 1997," *The Journal of Investing*, Summer 1998, p. 77

[11] *See, e.g.,* Shaifali Puri, "New Tools for the Options Crowd," *Fortune*, Nov. 10, 1997.

[12] *See, e.g.,* Nick Ravo, "On a Tightrope? Index Options Can Be Your Net," *New York Times*, Jan. 26, 1997.

- Hedge the portfolio with a collar (long puts for protection plus short calls for income)
- Covered call writing for income.

Following are summaries of five strategies — (1) the protective put for hedging, (2) the covered call for income, (3) the protective collar for low-cost hedging, (4) the long index call for market exposure, and (5) the long index put for protection from a market downturn.

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, tax costs, commission costs, and other transaction costs have been omitted from the examples.

II-A. Protective Puts Purchased Against Stock

The purchase of equity put options permits investors to limit the downside risk of stock ownership while retaining the upside potential.

Assume that an investor holds 100,000 shares of XYZ stock on October 18, with XYZ stock trading at 105. The investor is concerned about year-end price volatility, and would like to hedge against big downside moves in the stock over the next few months. However, the investor is reluctant to sell the stock because: (1) he is bullish on the long-term prospects for the stock; (2) his cost basis for the stock for tax purposes is $55 per share, and he would like to avoid the triggering of a taxable event resulting in the immediate recognition of a capital gains tax, and he would like the stock to receive a "step-up" in basis in his estate upon his death; and (3) he is concerned about the possible large transaction costs and market impact if he were to sell and then later repurchase 100,000 shares of XYZ stock. So the investor decides to consider a put option position.

An equity put option[13] is a contract that gives its owner the right, but not the obligation, to sell an underlying security at a specified price (the strike price) for a certain, fixed period of time. With XYZ trading at 105, assume the January (3-month) 100-strike put option on XYZ is trading at 3. The investor holding 100,000 shares of XYZ stock may purchase 1,000 put options against his stock holding.[14] This investor now owns the right to sell or "put" his shares to another party (at the specified strike price) in the case of a market decline.[15] Consider how this strategy works by analyzing potential profits or losses at expiration.[16] If XYZ declines in value, the put options allow the investor to sell 100,000 shares of XYZ (there is a multiplier of 100 shares for each of the 1,000 puts) at the 100 strike price at any time until the contract expires.[17] For example, if XYZ declined to 85 at expiration,

[13] The option contract discussed in this example is a 3-month standardized listed equity option. Investors also could consider hedging stock with: (1) FLEX® options with flexible terms (see Appendix IV for more details), (2) LEAPS® (Long-term Equity Anticipation Securities) in order to gain longer term protection with postponed time decay, or (3) options on equity index sectors such as the CBOE Technology Index or the GSTI Internet Index (GIN). Sector options can be helpful in certain circumstances to investors dealing with the tax straddle rules, which are discussed later in this paper.

[14] Normally, each equity option represents 100 shares of stock.

[15] This process whereby the owner of an option sells (in the case of a put) or buys (in the case of a call) an underlying security is called the "exercise" process.

[16] Positions may be "closed" before expiration. To close out a long position, an investor sells the options in the open market. To close out a short position, an investor buys the options in the open market.

[17] All standardized options on individual stocks are "American-style." This means they may be exercised at any time between purc hase and expiration. Most index options are "European-style." European-style options may only be exercised during a specified period o f time just prior to their expiration. FLEX® options are non-standardized, customizable options traded at the CBOE. With FLEX® options, investors may choose European-style exercise for options on individual stocks.

the owner of 100,000 shares purchased at 105 would have a loss of $2,000,000:

Own 100,000 shares of XYZ at 105	Value =	$ 10,500,000
100,000 shares of XYZ at 85	Value =	$ 8,500,000
Loss on stock position		($ 2,000,000)

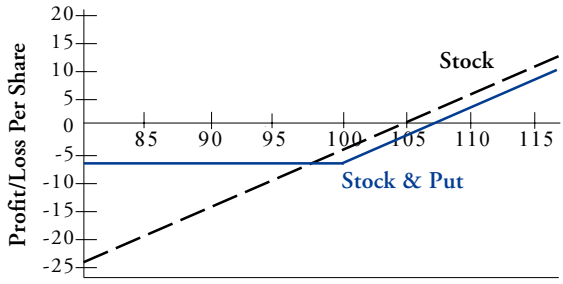
The owner of 100,000 shares could have limited his losses to $800,000 by purchasing 1,000 100-strike put options:

Own 100,000 shares of XYZ at 105	Value =	$ 10,500,000
Sell 100,000 shares of XYZ at 100 (through exercise)	Value =	$ 10,000,000
Loss on stock position		($ 500,000)
Premium paid for 1,000 puts at 3 (3 X $100 X 1,000)		($ 300,000)
Maximum Loss		($ 800,000)

In this case, this strategy limited the maximum potential loss to the sum of the put premium paid and the difference between the stock's initial market value and the strike price of the put. The use of the "protective" put has saved this investor $1,200,000 ($800,000 loss vs. $2,000,000 loss).

If XYZ is above 105 at expiration, the put will expire worthless for a cost of 3 per put or $300,000. Above the breakeven point of 108 (105 stock purchase price plus 3 premium), the position will be profitable. In this case, the investor retains upside potential of the stock.

Put Purchased Against Stock



Put options can place a known maximum limit on stock risk, with a pre-determined premium cost up-front. An alternative way for investors to limit the risk of their stock holdings is to simply sell part or all of their stock position. However, the protective put alternative has an advantage of increased potential for upside appreciation. This strategy is a useful tool for maintaining stock or stock market exposure through difficult periods.

Several of the following pages provide a discussion of legal and tax issues, which is provided only as general information and should not be relied on as up-to-date, definitive, or particularized legal or tax advice. Persons contemplating options trading should consult their own tax advisors before making a final decision with respect to such trading. In addition, *please see Appendix I* for more information on general tax issues applying to several types of option transactions.[18]

Tax Treatment of Protective Puts The purchaser of a put option –also referred to as the "holder" or the "long position" –does not incur taxable income or loss when he purchases the option.[19] Instead, the purchaser treats the option as an open transaction

[18] In addition, for more information on tax treatment of options please see *Taxes and Investing: A Guide for the Individual Investor*, at http://www.cboe.com/resources/tax.htm.

[19] If the option is not deep-in-the-money, the purchase of a put option with respect to appreciated XYZ stock should not be a tax realization event with respect to the underlying shares. Also, to the extent the put options relate to a single class of equity securities, they will not be so-called "section 1256 contracts," subject to the tax mark-to-market rules.

until the option lapses, the parties enter into a closing transaction, or he exercises the put option.[20] In addition, unless and until Treasury regulations are published to the contrary, purchasing a put option by itself will not result in a "constructive sale" of the investor's appreciated XYZ shares.[21]

Option Lapse. If the investor allows his XYZ put options to lapse (that is, to expire without exercise or sale), he is treated as if he sold the options.[22] In that case, the cost of the premium he paid to purchase the put options, plus any other commissions and fees, results in a capital loss. Except for a "married put"[23] that qualifies as an identified straddle, the put and the investor's appreciated XYZ shares together result in a tax straddle. As a result, any loss recognized upon lapse of the put option will be either long- or short-term, depending on the investor's holding period for his appreciated XYZ shares at the time he purchased the put options.[24] Further, under the straddle rules, these losses will be deferred, for tax purposes, as long as he holds the appreciated XYZ shares with deferred gains equal to (or greater than) the loss.[25]

Option Closing Transaction. If the investor enters into a closing transaction with respect to the put options (except for a married put as described above), he will recognize taxable gain or loss based on the difference between the amount he receives in the closing transaction and the premium he paid to purchase the put option (plus any other commissions and fees). Because put options are "offsetting positions" with respect to the investor's XYZ stock, the straddle rules suspend his holding period for the put options.[26] This means that any gain recognized on a closing transaction will be short-term capital gain regardless of how long he actually held the put options.

If the investor incurs a loss on a closing transaction, the straddle rules make that loss short or long term, depending on the holding period for his appreciated XYZ shares at the time he purchased the put options.[27]

Further, any losses he realizes on an option closing transaction will be deferred under the straddle rules to the extent he has unrealized gain in his appreciated XYZ shares.

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[20] IRC §1234.

[21] *See* Appendix I for more details on constructive sales.

[22] IRC §1234(a).

[23] The short sale rules do not apply to "married put transactions," where put options and the underlying stock are both acquired on the same day. IRC §1233(c). The investor must identify the stock on his records as the stock that he will deliver if he exercises the puts. Further, he can only meet the married put exception if he actually delivers the married stock when he exercises the puts. If the puts expire without exercise, he adds the cost of the puts to his tax basis in the stock that had been "married" to the puts. It is unclear whether the married put exception is an exemption from the straddle rules because married puts were not addressed in the Code or in the legislative history when the straddle rules were enacted. Nevertheless, married puts and stock can be exempt from the straddle rules if the investor clearly identifies the puts and stock as an "identified straddle" under IRC §1092 (a)(2) on the day he acquires all of the pu ts and the married stock. To meet this identified straddle provision, he must also dispose of all the positions on the same day.

[24] Treasury Regulations at 26 C.F.R. §1.1092(b)-2T(b) (1999). If he held the appreciated XYZ shares for more than one year at the time he purchased the puts, any loss on the options is long-term. On the other hand, however, if he held the appreciated XYZ shares for less than the long-term holding period at the time he purchased the put options, the loss on the options is short-term regardless of how long he held the put options.

[25] IRC §1092(a). For a discussion of the straddle rules, please see Appendix I, and *Taxes and Investing: A Guide for the Individual Investor*, at http://www.cboe.com/resources/tax.htm. *See also* A. Kramer, *Financial Products: Taxation, Regulation, and Design*, Part 14. (3rd ed., Panel Publishers 2000).

[26] IRC §1092, and Treasury Regulations at 26 C.F.R. §1.1092(b)-2T(a) (1999).

[27] Treasury Regulations at 26 C.F.R. §1.1092(b)-2T(b) (1999).

Option Exercise. If the investor exercises the put options, he must deliver XYZ stock. He can either deliver the appreciated XYZ shares he currently owns, or he can buy XYZ stock in the open market and deliver the new shares when he exercises the put options. To determine whether his sale of XYZ stock upon exercise of the put options results in a tax gain or loss, he compares the amount he realized on the sale of the shares to his tax basis in the shares he delivers.[28]

If the investor delivers his appreciated XYZ shares and he has a gain, such gain will —subject to the short sales rules —be long- or short-term, depending on his holding period for those XYZ shares as of the date he purchased the put options.[29] Even if the investor held his XYZ shares for at least one year prior to purchasing the put options, the short sale rules can convert any resulting gain into short-term gain if he purchased the same or substantially identical XYZ shares either during the one-year period prior to entering into the put option, or at any time during the period the put option was outstanding.[30]

If he exercises the put option and delivers XYZ shares at a loss, that loss will —subject to the short sales rules —be long- or short-term, depending on his holding period for the XYZ shares he delivers. Even if he delivers newly acquired shares that have a short-term holding period, the short sale rules can convert any resulting losses into long-term losses if the investor held the same (or substantially identical) XYZ shares at the time he purchased the put options and he held those shares for the long-term holding period.[31]

II-B. Writing Covered Call Options on Stock

Selling call options against stock holdings, often referred to as "covered calls" or "covered call writing," is a common strategy among investors. This strategy outperforms outright stock ownership in stable markets and reduces stock price risk by the premium received.

Assume that an investor buys 100 shares of company XYZ stock at 105. In addition, assume the investor sells one January (3-month) 110-strike XYZ call option at 4. By selling this option, the investor assumes the obligation of selling 100 shares of XYZ stock at the price of 110, at any time until the expiration of the option (in 3 months). In this case, the sale of the call is deemed "covered" because the investor owns the underlying shares of stock.

Consider potential profits or losses at expiration. If XYZ remains below 110, it is likely that the call buyer will choose not to "exercise"[32] the option. In this case, the covered call seller retains the XYZ stock and the option premium. The premium provides extra income and reduces the breakeven point on the stock position.

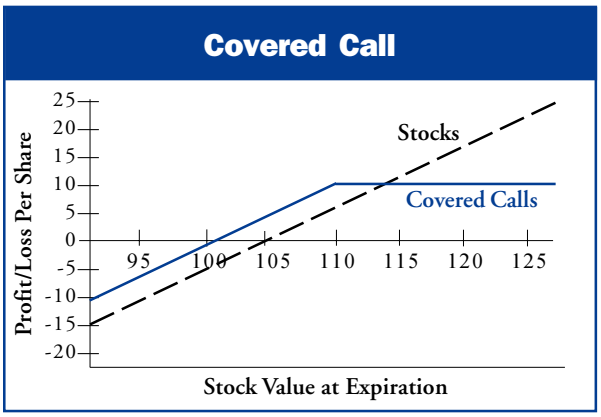
[28] The amount realized is equal to the option strike price he receives at the time of exercise, reduced by the option premium he paid, plus commissions and fees paid.

[29] Under the straddle rules, the investor's holding period in his appreciated XYZ shares is extinguished during the period he holds the put options to the extent the shares have been held for less than the long-term gain holding period at the time the straddle is established. In order for the sale of these shares to result in a long-term capital gain, they must be held for the long-term holding period as of the date the put options are purchased. Treasury Regulations at 26 C.F.R. §1.1092(b)-2T(a) (1999).

[30] IRC §1233(b).

[31] IRC §1233(d). Note that a loss on the sale of such newly purchased shares may avoid deferral under the straddle rules either because such shares are not part of a straddle, or if part of a straddle with the put option, all of the positions making up the straddle will have been disposed of.

[32] "Exercise" means to invoke the right under which the holder of an option may buy (in the case of a call) or sell (in the case of a put) the underlying security. "Assignment" is 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.



Purchase price of XYZ	105
Premium received from call sale	4
Breakeven on XYZ stock becomes	101

Note that the covered call seller does have risk of stock ownership, but the risk is reduced by the 4 premium. If, at expiration, XYZ is at or above 110, the buyer may exercise the right to purchase the XYZ shares at a price of 110. In this case, the covered call seller must fulfill the obligation to sell stock at the pre-set target price. The covered call seller will therefore have limited upside exposure to XYZ stock.

Sale price of XYZ	110
Breakeven price	101
So the maximum profit is	9

Or
$900 per option contract[33]

If the stock rallies from 105 to above 114 (the 110 strike price plus the 4 premium) at expiration, simply holding the underlying stock outperforms the covered call strategy. The covered call will outperform outright stock ownership in down markets and neutral to moderately up markets, with reduced downside risk.

Tax Treatment of Covered Call Transaction The seller of a call option –also referred to as the "writer" or the "short position"–does not incur taxable income when he receives the option premium.[34] Instead, he treats the option as an open transaction until the option lapses, the parties enter into a closing transaction, or the option purchaser exercises the call option.[35] In addition, unless and until Treasury regulations are published to the contrary, selling a call option by itself does not result in a "constructive sale" of the investor's appreciated XYZ shares.[36]

Option Lapse. If call options lapse (that is, expire without being exercised by the holder), the investor treats the option premium he received (reduced by any commissions and fees he paid) as taxable gain on the date of lapse. Regardless of the period the options were outstanding, he reports the premium income on the lapse of the call options as a short-term capital gain.[37]

Closing Transaction. The investor can enter into a closing transaction with respect to the call options he sold. If he enters into a closing transaction, he recognizes taxable gain to the extent the premium he received exceeds the amount he pays in the closing transaction. Regardless of the period the options were outstanding, he reports any gain on a closing transaction as short-term capital gain.[38]

[33] Each option contract represents 100 shares of stock, and the price per contract is 100 times the quoted price of the option.
[34] If the option is not deep-in-money, the sale of a call option with respect to appreciated XYZ stock should not be a tax realization event with respect to the underlying shares. Also, to the extent the call options relate to a single class of equity securities, they will not be so-called "section 1256 contracts" and are not subject to the tax mark-to-market rules.
[35] IRC §1234.
[36] *See* Appendix I for more details on constructive sales.
[37] IRC §1234(b).
[38] IRC §1234(b).

The investor incurs a loss on a closing transaction if the amount he pays exceeds the premium he received. The tax character of any losses on a closing transaction with respect to the call options sold by the investor depends on whether the options are part of a straddle transaction. If the call options are *not* treated as part of a straddle –meaning that the options meet the qualified covered call exception discussed below — *and* the options were not in-the-money when sold, the investor's losses will be short-term (regardless of the period the options were outstanding).[39] Even if the call options and the investor's appreciated XYZ shares qualify for the covered call exception to the straddle rules, if the call options are in-the-money when sold, a loss on an option closing transaction will be long-term if –at the time the loss is recognized –gain or loss on the sale of the investor's appreciated XYZ shares would be long-term.[40]

If the call options are treated as part of a straddle with respect to the investor's appreciated XYZ shares, any loss on the closing transaction will be long-term if the investor held his XYZ shares for the long-term holding period as of the date he sold the call options.[41] If they apply, the straddle rules will also require the investor to defer any losses he realizes on entering into the closing transaction. These losses would be deferred, for tax purposes, as long as he continues to hold the XYZ stock that was part of the straddle with deferred gains at least equal to the loss he incurs on the closing transaction.

Option Exercise. If the holder exercises call options, the investor must sell XYZ shares to the holder at the option strike price. To determine whether the sale of XYZ stock in settlement of the call options results in a tax gain or loss, the investor compares the amount realized on the sale of the shares to his tax basis in the shares he sells.[42]

If the investor delivers the XYZ shares he currently owns and the sale results in a gain, the gain is long- or short-term, depending on his holding period for his XYZ shares. See Appendix I for more details regarding the impact of the straddle rules on a taxpayer's holding period. If the call options and the XYZ shares are treated as a tax straddle, the investor's holding period for his shares will be determined as of the date he sold the call options.[43] Even if the call options and the XYZ shares qualify for the covered call exception to the straddle rules (discussed below), if the call option is in the money when sold, the investor's holding period for his shares will be suspended and, therefore, determined as of the date he sold the call options.[44]

If settlement of the call options involves a sale of XYZ shares the investor currently owns and the sale results in a loss, that loss is long- or short-term, depending on the investor's holding period for his XYZ shares. See Appendix I for more details regarding the impact of the straddle rules on a taxpayer's holding period. If the qualified covered call exemption to the straddle rules is not available[45]

[39] IRC §1234(b).
[40] IRC §1092(f)(1).
[41] Treasury Regulations at 26 C.F.R. §1.1092(b)-2T(b).
[42] The amount realized equals the option strike price he receives, plus the call option premium he received, reduced by commissions and fees.
[43] If the straddle rules apply, the investor's holding period in his XYZ shares is extinguished during the period the options are outstanding to the extent the shares have been held for less than the long-term gain holding period at the time the straddle is established. Treasury Regulations at 26 C.F.R. §1.1092(b)-2T(a) (1999).
[44] IRC §1092(f)(2).
[45] 26 C.F.R. §1.1092(b)-2T(a) (1999).

–or the qualified covered call exception is met but the call options were in the money when sold[46] — the investor's holding period for his XYZ shares will be suspended and determined as of the date he sells the call options.

If the investor purchases XYZ stock in the open market and he delivers those shares upon the exercise of the call options, any loss on the sale generally would be short-term, but if the call options are treated as part of a straddle with respect to the investor's appreciated XYZ shares, any loss on the closing transaction will be long-term if the investor held his XYZ shares for the long-term holding period as of the date he sold the call options.

Straddle Exemption for Qualified Covered Calls. Because the investor owns XYZ stock, he holds offsetting positions when he sells XYZ call options that may be treated as a tax straddle. The straddle rules would apply unless the call options meet the "qualified covered call" exception. [47]

To meet the qualified covered call exemption, the stock and the written call options cannot be part of a larger straddle.[48] In addition, the investor must meet five other conditions at the time he writes the call options. First, the options must have been granted more than 30 days before their expiration. Second, the options must be traded on a national securities exchange. Third, they must *not* be deep-in-the-money.[49] Fourth, the options must not be granted by an options dealer in its dealer capacity. And, fifth, the investor's gain or loss with respect to the options must be eligible for capital gain or loss treatment. A special rule applies to qualified covered calls that are "in-the-money" on the date entered into. IRC §1092(f). In that case, a holding period suspension rule and loss deferral rule apply.

A special year-end rule can prevent an investor from relying on the qualified covered call exemption if three conditions are met. First, the call options are closed or the stock is disposed of at a loss. Second, the stock (or the call options) were not held by the investor for at least 30 days after the call option position was closed (or he sold his stock). And,

[46] IRC §1092(f)(2).

[47] IRC §1092(c)(4). The qualified covered call exemption appears to be limited to the disposition of qualified covered call optio ns written on corporate stock. It is not available for options on debt securities, commodities, or foreign currencies. And, the exemption is probably not available for options on stock indices or futures contracts.

[48] Examples of larger straddles include conversion transactions, reverse conversion transactions, butterfly, or box spread transactions. In addition, collar transactions –consisting of the purchase of a put and the sale of a call option on the underlying shares –wo uld appear to result in a larger straddle.

[49] IRC §1092(c)(4). Whether options are deep-in-the-money is determined by reference to the strike price of the options and, gen erally, the closing stock price on the last day the stock was traded before the investor sold the call options. Deep-in-the-money options are defined as options with strike prices lower than the lowest qualified benchmark, which generally means the highest available strike price below the applicable stock price. Applicable stock price is defined as either (1) the closing price of the stock on the most recent day the stock was traded before the options were sold or (2) the opening price of the stock on the day on which the options were granted if this price exceeds by 110 percent the price under clause (1). Under current securities exchange rules, the lowest qualified benchmark for stock trading below $25 is $2.50 in-the-money; for stock trading between $25 and $200, the lowest qualified benchmark is $5 in-the-money; and for stock trading above $200, the lowest qualified benchmark is $10 in-the-money. If the stock price is $150 or less, the call must not be more than $10 in-the-money, as determined by reference to the applicable stock price. If the stock price is $25 or less, the strike price of the call option must be equal to or greater than 85 percent of the stock price, determined by reference to the applicable stock price the day before the call option is written. Under a special provision, call options written with more than 90 days to expiration and with a strike price of more than $50, are qualified covered calls if the calls have a strike price no less than the second available strike price *below* the closing stock price the day before the call options are sold. In January 2000 the IRS amended 26 C.F.R. §1.1092(c)-1 to provide that the existence of flexible call strikes (with FLEX options) will have no effect on the determination of qualified covered call status. 65 F.R. 3812 (Jan. 25, 2000).

third, he includes gains with respect to the disposition of the options (or the sale of the shares) in a subsequent tax year. If these three conditions are met, the transaction is subject to the straddle rules. It is not treated as a qualified covered call.

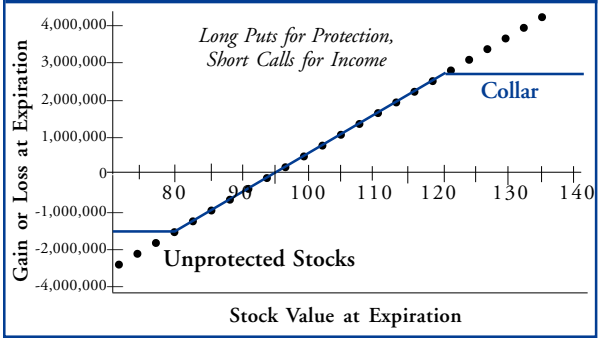
III-C. Protective Collar on Stock

The protective collar strategy provides downside protection through the use of put options, and finances the purchase of the puts through the sale of call options.

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 premium cost, or can be established as a credit. The put options place a "safety net" under the stock by protecting value in a declining market, "insurance" against the risk of a decline. The call sales generate income to offset the cost of the purchase of the protective puts. Depending on the call strike price and the level of the underlying stock at expiration, assignment of the short call position may have the effect of limiting gains. In other words, collars are transactions where downside insurance is financed with upside potential.

As a hypothetical example, assume it is August and an investor has a large portion of his portfolio invested in 100,000 shares of XYZ stock, which rose in price from 60 to 96 per share so far this calendar year. The investor would like to limit big losses and lock in at least $20 worth of gains on the stock through December, while still retaining the potential to participate in more upside moves of the stock.

Protective Collar Using Equity Options



If the investor wanted downside protection below 80 for approximately 6 months, he could purchase December expiration 80-strike puts for $4 per share and sell December expiration 120-strike calls for $4-1/2. In this case, the investor would net $0.50 per share to establish the collar (not including commissions).

Since each option contract covers 100 shares, the investor needs to buy 1,000 put options and sell 1,000 call options to hedge the entire 100,000 shares with a collar. Therefore, this collar can be initially established for a net credit of $50,000 ($0.50 per share x 100,000 shares). Alternately, $450,000 received from the sale of the calls (1,000 call contracts x $4.50 premium x 100 shares) less $400,000 paid for the purchase of puts (1,000 put options x $4.00 premium x 100 shares).

Possible Outcomes

- **The Stock Rises** – The portfolio participates in any upside move up to the strike price of the calls. Above the 120 price level, losses from the short call position offset gains in the underlying stock. The puts expire worthless.

- **The Stock Falls** – The stock has protection on the downside. Below the 80 price level, gains from the long put position offset losses in the underlying stock. The calls expire worthless.

- **The Stock Price Remains Stable –** If the stock price remains between the put strike of 80 and the call strike of 120, the options expire. In this case, the total value of the stock position is increased by the $50,000 net premium received.

Tax Treatment of Collar Transactions The investor will not incur taxable income or loss when he enters into a collar transaction.[50] Instead, he treats each option that forms part of the collar as an open transaction until that option lapses, the parties to the option enter into a closing transaction, or the put option is exercised by the investor, or the call option is exercised by the holder.[51] In addition, unless and until Treasury regulations are published to the contrary, entering into a collar will not result in a "constructive sale" of the underlying XYZ shares.[52]

Put Options. The put option portion of a collar transaction will be taxed to the investor in the same manner as put options purchased outside of a collar transaction.[53] Because the put options form part of a straddle with respect to the investor's appreciated XYZ shares, any gain on a closing transaction with respect to the put options will be short-term capital gain.[54] Any loss on either a closing transaction or a lapse of the put options will be either long- or short-term, depending on the investor's holding period for the appreciated XYZ shares at the time he purchased the put options.[55] Further, under the straddle rules, any loss resulting from a lapse or a closing transaction with respect to the investor's put options will be deferred, for tax purposes, as long as he holds the appreciated XYZ stock with deferred gains equal to (or greater than) the loss.[56]

If the investor exercises the put options and delivers his appreciated XYZ shares, any resulting gain will –subject to the short sales rules –be long- or short-term, depending on his holding period for those shares as of the date he purchased the put options.[57] The short sale rules will cause any resulting gain on the delivery of his appreciated XYZ shares to be short-term gain, if the investor purchased the same or substantially identical XYZ shares either during the one-year period prior to entering into the put options, or at any time during the period the put options were outstanding.[58] If the investor exercises the put option by delivering newly purchased XYZ shares, any resulting gain on a delivery of those shares will be short-term.

If the investor exercises the put option and delivers newly purchased XYZ shares resulting in a loss, that loss will generally be short-term. The short sale

[50] As long as neither option is deep-in-the-money, the purchase of a put option and the sale of a call option with respect to appreciated XYZ stock should not be a tax realization event with respect to the underlying shares. Also, to the extent the options relate to a single class of equity securities, they will not be so-called "section 1256 contracts," subject to the tax mark-to-market rules.

[51] IRC §1234.

[52] To the extent set out in future Treasury regulations, a constructive sale may include collar transactions. Although such regulations are generally to have a prospective effect, they may be applied retroactively to "abusive" transactions. See Appendix I for more d etails on constructive sales.

[53] *See* the discussion under "Tax Treatment of Protective Puts" in Section II-A above.

[54] Treasury Regulations at 26 C.F.R. §1.1092(b)-2T(a) (1999).

[55] Treasury Regulations at 26 C.F.R. §1.1092(b)-2T(b) (1999). If he held the appreciated XYZ shares for more than one year at t he time he purchased the puts, any loss on the put options is long-term. If he held the appreciated XYZ shares for less than the long-term holding period at the time he purchased the put options, the loss on the options is short-term regardless of how long he held the put options.

[56] IRC §1092(a).

[57] Under the straddle rules, the investor's holding period for his appreciated XYZ shares is extinguished during the period he holds the put options to the extent the shares have been held for less than the long-term gain holding period at the time the straddle is established. In order for the sale of those shares to result in a long-term capital gain, they must be held for the long-term holding period as of the date the put options are purchased. Treasury Regulations at 26 C.F.R. §1.1092(b)-2T(a) (1999).

[58] IRC §1233(b).

rules will cause any resulting losses on the delivery of newly purchased XYZ shares to be long-term, however, if the investor's appreciated XYZ shares were held for the long-term holding period at the time he purchased the put options.[59]

Call Options. The call option portion of a collar transaction will generally be taxed to the investor in the same manner as call options purchased outside of a collar transaction.[60] The difference, however, is that call options that are sold as part of a collar transaction are likely to be considered part of a "larger straddle," and therefore may not be eligible for the "qualified covered call" exception to the tax straddle rules.[61]

Any gain resulting from the lapse of, or a closing transaction with respect to, the XYZ call options sold by the investor will be short-term capital gain.[62] Assuming the call options are part of a "larger straddle" with respect to the investor's appreciated XYZ shares and the put options, any loss on a closing transaction with respect to the call options will be either long- or short-term, depending on the holding period for the investor's appreciated XYZ shares at the time he sold the call options.[63] Further, under the straddle rules, any loss resulting from a closing transaction with respect to the call options will be deferred, for tax purposes, as long as he holds the appreciated XYZ shares with deferred gains equal to (or greater than) the loss.[64]

If the call option is exercised by the holder, any gain or loss recognized by the investor on the sale of XYZ shares generally will be long- or short-term, depending on his holding period for the XYZ shares he actually delivers, however, if the call options are treated as part of a straddle with respect to the investor's appreciated XYZ shares, any loss on the closing transaction will be long-term if the investor held his XYZ shares for the long-term holding period as of the date he sold the call options.[65]

II-D. Long Index Call Options for Equity Market Exposure

Index option contracts can provide an investor with the market exposure necessary to participate in upside gains of the market, with limited downside risk. In addition, the transaction costs for index options often are much lower than the costs involved with transacting in the hundreds of index components.

Suppose there are two investors who both desire to gain about $15 million worth of exposure to upside in the U.S. stock market over the next two months, but would like to limit the downside risk of their positions. Investor A has received an influx of $15 million in cash which she would like to have invested on a temporary basis in liquid instruments before investing the cash in a capital project. Investor B wants to diversify his portfolio; he currently has 90 percent of his net worth in XYZ

[59] IRC §1233(d). Note that a loss on the sale of such newly purchased shares may avoid deferral under the straddle rules either because such shares are not part of a straddle, or if part of a straddle with the put option, all of the positions making up the straddle will have been disposed of.

[60] *See* the discussion under "Tax Treatment of Covered Call Transaction" in Section II-B above.

[61] IRC §1092(c)(4)(A)(ii).

[62] IRC §1234(b).

[63] Treasury Regulations at 26 C.F.R. §1.1092(b)-2T(b) (1999). If he held the appreciated XYZ shares for more than one year at the time he sold the calls, any loss on the options is long-term.

[64] IRC §1092(a).

[65] If the straddle rules apply, the investor's holding period in his appreciated XYZ shares is extinguished during the period the call options are outstanding to the extent the shares have been held for less than the long-term gain holding period at the time the straddle is established. Treasury Regulations at 26 C.F.R. §1.1092(b)-2T(a) (1999).

stock and believes that U.S. stocks will outperform XYZ stock in the near term. He plans to do a protective put on XYZ stock and would like to obtain some broad equity market exposure in the near term.

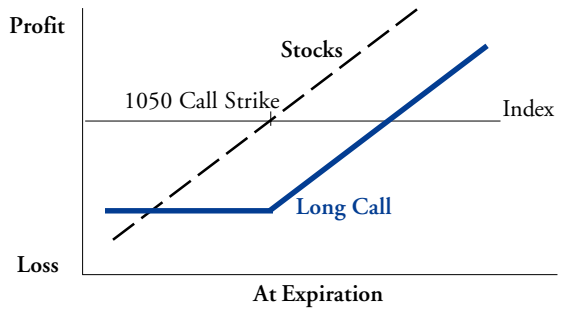
One investment alternative that could be considered by both investors is long call options on the S&P 500 (ticker symbol "SPX") Index. Instead of allocating the $15 million to shares of hundreds of different stocks, the investors can purchase SPX call options. With the SPX at a level of 1050, the "at-the-money" 1050 strike call with 60 days until expiration might be quoted at a premium of 40. Each investor would purchase 143 call options – the number of contracts is found as follows:

$$\frac{\text{\$15,000,000 portfolio exposure}}{\text{(1050 index level x 100 multiplier)}} = 142.8$$

The cost to each investor for the call option premiums is $572,000 (143 x 40 x 100).

The call purchase provides exposure to the broad market in proportion to the $15 million influx (less the $572,000 premium paid) and limits the downside risk to the $572,000 cost of the calls. Investor A retains the remaining cash, in the amount of $14,428,000, which can be invested in Treasury bills and earn interest. Investor B is able to diversify his portfolio and limit his downside risk.

Long Index Call



Tax Treatment of Broad-based Equity Index Call Purchases Listed options on a broad-based equity index are so-called "section 1256 contracts,"[66] which generally are subject to two special tax rules: mark-to-market tax accounting and the 60/40 rule for characterizing gain or loss.[67] These special rules are discussed below.

Mark-to-Market Tax Accounting. Under the section 1256 contract rules, if equity index call options are held by an investor at the close of a tax year, the options are treated as if sold at their fair market value on the last business day of the tax year.[68] Any resulting mark-to-market gain or loss —which is measured by the difference between the fair market value of the index options at the end of the year and the investor's tax basis in his index options —is included in the investor's taxable income for the year even if he continues to hold the options. Mark-to-market gain (or loss) is then added to (or subtracted from) the investor's tax basis in his index options for purposes of measuring any future gain or loss on the options.

[66] IRC §1256(g)(3). In Rev. Rul. 94-63, the IRS ruled that options based on a stock index and which are traded on (or subject to the rules of) a qualified board or exchange meet the requirements for designation as nonequity options if the SEC has determined that the stock index is a "broad-based" index. The discussion in the following sections applies only to options on broad-based equity i ndexes such as the S&P 500® (SPX™), S&P 100® (OEX®), DJIA℠ (DJX), and Nasdaq-100® (NDX). Options on narrow-based indexes (such as some sector index options) are not eligible for mark-to-market tax accounting and 60/40 treatment.

[67] IRC §1256(a). However, the mark-to-market rules do not apply to straddles that qualify as "hedging transactions" under IRC § 1256(e).

[68] IRC §1256(a)(1).

The investor will also be required to take the value of his index options into account at the time he terminates or transfers the options during the year. This means the investor's equity index options are marked-to-market upon lapse, assignment, exercise, or other closing transaction.[69]

60/40 Rule. Under the 60/40 rule, gains and losses are netted from section 1256 contracts for the year. Sixty percent of the investor's net gain or loss from all section 1256 contracts is treated as long-term and 40 percent is treated as short-term capital gain or loss.[70]

II-E. Long Index Put Options for Portfolio Protection

The purchase of stock index put options permits an investor to hedge equity market risk by limiting downside risk while retaining upside potential.

Suppose an investor's equity portfolio is diversified and roughly matches the composition of the S&P 500 Index (SPX), and that the SPX currently is at a level of 900.

The investor would like to establish a hedge to protect $90 million of the fund's value. Assume that the investor 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), that is, 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 various 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 investor achieved the goal of establishing a hedge for a portion of the portfolio. Also, note that the portfolio retains 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.

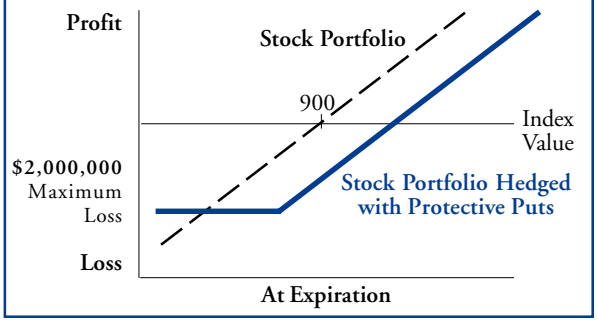
- **The Index Falls** – If the puts are at-the-money or in-the-money, an increase in the value of the puts may approximate the loss in the portfolio's value. Tracking error will undoubtedly have an

Table 1: Protective Put Options

1 Range of Market Outcomes	2 S&P 500 Expiration Level	3 Value of Unprotected Portfolio	4 Profit/Loss Index Options	5 Profit/Loss Protected Portfolio	6 Value of Protected 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

[69] IRC §1256(c).
[70] IRC §1256(a)(3).

Stock Portfolio with a Protective Put



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, 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.

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

Tax Treatment of Broad-based Equity Index Put Purchase Broad-based stock index put options are so-called "section 1256 contracts," and generally are subject to mark-to-market tax accounting and the 60/40 rule for characterizing gain or loss.[71]

Straddle Rules. By purchasing index put options, the investor has reduced his risk of loss with respect to his stock portfolio. Whether the transaction results in a tax straddle will depend on the application of special straddle rules that apply to stock. For stock to be part of a tax straddle, the stock must be both actively traded *and* offset either by (1) an option on the same stock or substantially identical stock or securities or (2) "substantially similar or related property." [72]

For purposes of the tax straddle rules, broad-based equity index options are not considered to be options with respect to the same or substantially identical stock. The index put options can, however, be considered "substantially similar or related property" with respect to the investor's stock portfolio –and therefore part of a tax straddle — if the investor's stock portfolio and the index put options "substantially overlap." [73] There is a substantial overlap for tax purposes if the taxpayer owns at least 70 percent, by market weight, of the stocks included in the index option position.

If the investor's stock portfolio substantially overlaps the equity index options within the meaning of the straddle rules, any losses recognized with respect to

[71] IRC §1256(g)(3). For a more detailed discussion of the tax rules applicable to section 1256 contracts, please see the discu ssion of "Tax Treatment of Equity Index Call Options" in Section II-D above. The discussion in the following sections applies only to op tions on broad-based equity indexes such as the S&P 500 (SPX), S&P 100 (OEX), DJIA 30 (DJX), and Nasdaq-100 (NDX). Options on narrow-based indexes (such as some sector index options) are not eligible for mark-to-market tax accounting and 60/40 treatment.
[72] IRC §1092(d)(3).
[73] Treasury Regulations at C.F.R. §§1.246-5(c) and 1.1092(d)-2(a).

the index put options are deferred, for tax purposes, as long as he continues to hold his stock portfolio with deferred gains equal to (or greater than) the loss.[74] In addition, if the index put options are part of a tax straddle, the 60/40 rule will not apply. Instead, gains with respect to the index put option will be short-term, and losses will either be long- or short-term, depending on the investor's holding period for the stock portfolio at the time he purchased the put options.[75]

III. Other Considerations for Use of Options

III-A. Standardized Options vs. FLEX Options

Investors considering the use of listed options may wish to consider both standardized options and FLEX options. Standardized options grant the holder of an option the right to buy or sell at a standardized exercise price for a standardized period of time. The Chicago Board Options Exchange introduced standardized exchange-listed options in 1973.

FLexible EXchange® ("FLEX®") options were developed in 1993. FLEX® options allow the investor to select non-standardized contract terms, for such components as the exercise price, expiration date and style (e.g., American- vs. European-style). Like conventional options, FLEX options continue to provide the price discovery of competitive auction markets; a secondary market to offset or alter positions; an independent daily valuation of prices; and contract guarantees, with the virtual elimination of counterparty risk.[76]

III-B. Financial Integrity of Exchange-Listed Options

The Options Clearing Corporation (OCC) issues all CBOE options contracts. The 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 stringent 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.

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[74] IRC §1092(a). For a discussion of the straddle rules, please see Appendix I, and *Taxes and Investing: A Guide for the Individual Investor*, at http://www.cboe.com/resources/tax.htm. *See also* A. Kramer, *Financial Products: Taxation, Regulation, and Design*, Part 14 (3rd ed., 2000 Panel Publishers). If a straddle exists between a section 1256 contract and stock, it will be a so-called "mixed straddle," potentially eligible for certain mixed straddle elections.

[75] Treasury Regulations at 26 C.F.R. §§1.1092(b)-2T(a) and (b) (1999).

[76] For an example of how an institutional investor used index FLEX options, see Paul Barr, "UFCW Hedges to Lock in Gains," *Pensions & Investments*, Dec. 8, 1997.

In addition to the OCC safeguards, the CBOE has adopted its own rules and regulations to better promote a fair and orderly marketplace. Both the CBOE and the 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*** at or prior to account approval. In addition, if a person targeted to receive options sales literature disseminated by the firm has not previously received an options disclosure document, the document must accompany the sales literature. 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 Registered Representatives. 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 a self-regulatory organization of which the firm is a member.

III-C. Fiduciary Requirements for Trustees

The activities of trust companies, trust departments and other trustees acting in their capacity as trustees are governed primarily by the law of the state in which the trust is located, except in the case of trusts maintained for employee benefit plans covered by the Employee Retirement Income Security Act of 1974 (ERISA). See Appendix III for a regulatory circular on the fiduciary requirements applicable to certain trustees that use exchange-listed options.

III-D. Options Transactions Involving Insiders, Affiliates and Restricted Securities

Certain high-net-worth investors who own shares in a public corporation should be aware of two provisions which may affect their options transactions: (i) Section 16 under the Securities Exchange Act of 1934 (the "1934 Act") and the rules under the 1934 Act, and (ii) SEC Rule 144 under the Securities Act of 1933 (the "1933 Act").

Corporate Insiders. Section 16 applies to directors and officers of a public corporation and holders of more than 10% of a registered class of its equity securities; these people are referred to as corporate "insiders."[77] Both the reporting and liability provisions of Section 16 apply to a public corporation's "derivative securities," which are defined to include any stock options, warrants, convertible securities, puts, calls and other rights whose value is derived from the public corporation's equity securities.[78]

[77] Section 16 requires these insiders to file reports (Forms 3, 4 and 5) with the SEC detailing their beneficial ownership of the public corporation's equity securities and subsequent changes in their beneficial ownership. Section 16 also has a liability provision which prohibits statutory "insiders" from profiting on purchases and sales made within a period of less than six months by requiring that any such profits be repaid to the corporation. 15 U.S.C. §240.16a-4 (2000).

[78] SEC Rule 16a-1, 17 C.F.R. §240.16a-1 through 240.16a-4 (2000).

Affiliate Securities and Restricted Securities. Rule 144 provides an exemption from the registration requirements of the 1933 Act for the sale of "affiliate securities" and "restricted securities," provided that the investor satisfied certain conditions regarding public information, manner of sale, volume limitation and notice and, in the case of restricted securities only, a one-year holding period.[79]

Section 16 and Rule 144 are complex and technical and their application, particularly with respect to options transactions, depends upon the facts of particular situations. Investors should consult with their lawyers or advisors before undertaking transactions subject to Section 16 or Rule 144.

III-E. Conclusion

Listed options can be useful tools in helping high-net-worth investors to hedge, monetize, and diversify their portfolios in a tax-efficient fashion.

[79] Affiliate securities are securities owned by persons who control the corporation, which generally means the corporation's directors and officers and the holders of more than 10% of its securities. Restricted securities are essentially securities that have not been registered under the 1933 Act and have been acquired from the corporation or an affiliate of the corporation. 17 C.F.R. §230.144 (2000). One of the issues on which we do not yet have definitive guidance by the SEC is whether certain written long-dated European-style equity FLEX call options could be considered "covered" calls when held in conjunction with stock which is restricted in terms of its holdin g period.

Appendix I: Brief Overview of Certain Tax Topics and Issues

Numerous tax issues need to be addressed by investors considering the tax character and timing of option transactions. First and foremost, is the option a capital or an ordinary asset? For investors, options on stocks and stock indices are treated as capital assets, as long as the investor has not made a mark-to-market "securities trader" election under the tax mark-to-market rules.

Once tax character is determined, additional tax issues must be considered. For example, is the option a so-called "section 1256 contract"? Does entering into the option create a tax "straddle" with respect to stock or another option that the investor holds? Can the option be viewed as a "wash sale" or a "short sale" with respect to stock or another option? Do the constructive sales or anticonversion rules apply? This Appendix provides a brief overview of these issues as they apply to the portfolio management strategies that are discussed in earlier sections of this paper.

"Section 1256 Contracts" Include Broad-based Equity Index Options. Certain exchange-traded positions are treated as "section 1256 contracts." With respect to options, exchange-traded options on a single class of equity securities and options on narrow-based equity indices are *not* section 1256 contracts. Exchange-traded options on broad-based equity indices, on the other hand, are section 1256 contracts.[80] Section 1256 contracts are subject to two special rules. First, section 1256 contracts are marked-to-market for tax purposes. Second, to the extent a section 1256 contract is a capital asset in the hands of an investor, mark-to-market gains and losses attributable to section 1256 contracts are treated as 60 percent long-term and 40 percent short-term capital gain or loss.[81]

Straddle Rules for Offsetting Positions. A tax straddle is defined as "offsetting positions with respect to personal property."[82] A "position" includes any interest in property, including an option. "Personal property" is any personal property of a type that is actively traded. It generally includes stock only if the stock is offset either (1) by an option on that stock or substantially identical stock or securities, or (2) by a position that is considered to be "substantially similar or related property."[83]

The straddle rules include two principal components. First, if the straddle rules apply, losses on any position that was part of the straddle are deferred to the extent of any unrecognized gains on offsetting positions.[84] Second, to the extent a straddle exists, interest and carrying charges attributable to a position that is part of the straddle cannot be deducted currently but must be capitalized as part of the straddle.[85]

The straddle rules raise tax character considerations for individual investors. First, because the holding periods for positions that are part of a straddle are suspended, the straddle rules can prevent property that is held as part of a straddle from qualifying for long-term capital gain treatment.[86] The only exception to this rule is for property that the investor had already held for more than the

[80] IRC §1256(g)(3).
[81] IRC §1256(a) .
[82] IRC §1092(c).
[83] IRC §1092(d)(3).
[84] IRC §1092(a). Taxpayers entering into straddle transactions with respect to positions in stocks or securities should, in si tuations where the number of shares owned is greater than the number of shares subject to an offsetting position, consider specifically identifying those shares that comprise the straddle pursuant to IRC §1012, as contemplated by Private Ruling 199925044.
[85] IRC §263(g).
[86] Treasury Regulations at 26 C.F.R. §1.1092(b)-2T(a).

long-term holding period before entering into the straddle. Such long-term property continues to qualify for long-term capital gain treatment. Conversely, the straddle rules can, in certain situations, convert what would otherwise be short-term capital losses into long-term losses.[87] Exemptions from the straddle rules apply to certain option transactions. First, written call options that meet the requirements of a so-called "qualified covered call" are exempt from the straddle rules.[88] This covered call exception is described in greater detail above in Section II-B under the heading "Tax Treatment of Covered Call Transactions." Second, taxpayers that acquire all of the positions of a straddle on the same day (such as the stock and option positions) can identify the positions as part of an "identified straddle" and segregate this straddle from other transactions.[89] These identified straddle provisions can apply to transactions that would qualify for the "married put exception" in the short sale rules.

Wash Sale Rules. The wash sale rules prevent an investor from reporting "losses" by selling stock or securities at a loss while re-establishing a position in the same or substantially identical stock or securities within a prohibited time period.[90] The wash sale rules provide for the deferral of losses on the sale of stock or securities if the investor purchases —or enters into a contract or an option to purchase — the same or "substantially identical" stock or securities within a 61-day period beginning 30 days before and ending 30 days after the investor sold stock or securities at a loss. The wash-sale rules can also apply to losses on the disposition of *options* to acquire or sell stock or securities.

Short Sale Rules. A short sale of stock is a sale of borrowed shares. The short sale rules are intended to prevent an investor from manipulating long- and short-term capital gains and losses. Two basic short sale rules affect tax character. First, the character of any gain recognized on closing a short sale is treated as short-term (regardless of the investor's holding period for the stock or securities actually used to close out the short position) to the extent the investor purchased the same or substantially identical stock or securities to those sold short either during the one-year period before the short sale is entered into, or at any time during the period the short sale was outstanding.[91]

Second, the short sale rules prevent an investor from reporting a short-term capital loss by closing a short sale with short-term property if —as of the date the short sale was entered into —the investor held the same or substantially identical stock or securities for the long-term holding period.[92] This loss rule applies without regard to the holding period of the stock or securities actually used to close out the short sale.

The short sale rules also apply to the acquisition of an option to sell property.[93] In other words, purchasing a put option can be treated as entering into a short sale subject to the short sale rules. An exception to this treatment is provided, however, for so-called "married put" options, which are transac-

[87] Treasury Regulations at 26 C.F.R. §1.1092(b)-2T(b).
[88] IRC §1092(c)(4).
[89] IRC §1092(a)(2).
[90] IRC §1091.
[91] IRC §1233(b).
[92] IRC §1233(d).
[93] IRC §1233(b).

tions where the option and the underlying stock positions are both entered into on the same day and meet certain requirements.

Constructive Sale Rules for Certain Low-risk Transactions. An investor must recognize gain — but not loss —on entering into a "constructive sale" of any appreciated financial position, which includes most positions in stock, whether or not actively traded.[94] A constructive sale is a transaction in which the owner of an appreciated financial position enters into one of three transactions: (1) a short sale of the same or substantially identical property; (2) an offsetting notional principal contract (such as a swap) with respect to the same or substantially identical property; or (3) a futures contract or forward contract to deliver the same or substantially identical property. To the extent set out in future Treasury regulations, a constructive sale can also include other transactions (such as option transactions) with substantially the same effect. Regulations are expected to establish "safe harbor" exceptions for certain options, based on factors such as market prices and the length of the transaction. Option prices and option pricing models are also expected to be considered in the regulations.

Anticonversion Rule. A conversion transaction is defined as one where substantially all of an investor's return is attributable to the time value of the investor's net investment.[95] It includes straddles; transactions involving the contemporaneous purchase of property and entering into of a contract to sell that property at a fixed price in the future; or any transaction marketed and sold as producing capital gains where the investor's return is essentially attributable to the time value of the investor's investment.

The anticonversion rule prevents an investor from converting ordinary income into capital gains. As a result, capital gain from a "conversion transaction" is recharacterized as ordinary income in transactions that are economically equivalent to lending transactions. This means that the amount of the investor's return on the transaction that is based on the time value of money generates ordinary income, rather than capital gain.

The above discussion of legal and tax issues is provided only as general information, and should not be relied on as up-to-date, definitive, or particularized legal or tax advice. Persons contemplating options trading should consult their tax advisors before making a final decision with respect to such trading.

[94] IRC §1259.
[95] IRC §1258.

Appendix II: 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.

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 option: 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 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 that 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-the-money if the strike price is greater than the market price of the underlying security. A put option is out-of-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 or an index value, at a specified price for a certain, fixed period of time.

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.

Swap: A contractual agreement to exchange a stream of payments with a counterparty. The traditional **interest rate swap** is an exchange of fixed interest payments for floating rate payments. A generic **currency swap** is an agreement to exchange one currency for another at a forward exchange rate. The most common form of **equity swaps** involves a swap between the return on a stock index and a benchmark rate of interest; equity swaps also can involve the exchange of returns on two different equity indices.

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.

Uncovered call writing: A short call option position in which the writer does not own an equivalent position in the underlying security that is 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 daily price movements.

Writer: The seller of an option contract.

Appendix III: Regulatory Circular on Use of Exchange-traded Options

Trust Banking Circular No. 2 (Revised)

From the Office of the Comptroller of the Currency, Administrator of National Banks, December 19, 1979

Subject: National Bank Trust Department Use of Exchange-traded Put and Call Options

To: Regional Administrators, Senior Trust Offices of National Banks with Trust Powers and National Trust Examiners

This circular establishes policies and procedures that should be followed by national bank trust departments that engage in exchange-traded put and call options transactions ... We have decided that these put and call options are investment tools which are inherently neither prudent nor imprudent. These options are securities registered under the Securities Act of 1933 which are covered by the current issue of the Options Clearing Corporation prospectus. Once it has been determined that the use of options is legally permissible for a specific account, the question of appropriateness is applied to how the option is utilized and what specific strategy is being implemented in the overall portfolio.

Whether the use of a particular investment practice, such as engaging in options transactions, is legally permissible for trust department accounts depends upon the instrument establishing the fiduciary relationship and the applicable rules of investments (local law) governing the specific trust account. This is a standard established by 12 CFR 9.11.

1. Employee benefit trusts which are subject to the Employee Retirement Income Security Act of 1974 (ERISA) are now governed by the rule of prudence established pursuant to that statute, which has superceded the local law of the various states. Under the prudence rule, the relative riskiness of a specific investment or investment course of action does not render such investment or investment course per se prudent or imprudent. Rather the prudence of each investment decision should be judged with regard to the purpose that it serves in the overall portfolio.

2. All other trust accounts are governed by the law of the state in which the bank fiduciary is located. Whether a given investment or investment course of action is permissible under this standard may rest upon an analysis of that law, the terms of the particular governing instrument, and the needs of the account in question. In some jurisdictions particular investments may be deemed to be speculative and objectionable per se.

The following are minimal guidelines that should be followed by national bank trust departments that engage in exchange-traded option transactions:

1. Prior to engaging in these transactions, the trust department should obtain an opinion of bank counsel concerning the legality of these activities. Wherever possible, the bank should consider amending the

governing instrument of each particular account to grant specific authority for the type of option transactions to be engaged in. For collective investment accounts, the activity must be legally permissible for all the participating accounts and the investment fund plan must indicate that the fund may engage in option transactions. Each participating account should be notified of the expanded authority.

2. Specific written policies approved by the board of directors or its designee should be developed prior to engaging in these activities. Policy objectives must be specific enough to define permissible option strategies and should be reviewed at least annually for appropriateness.

3. Recordkeeping systems must be sufficiently detailed to permit internal auditors and bank examiners to determine whether operating personnel have acted in accordance with authorized objectives and that particular transactions were appropriate for the purposes and needs of the particular accounts. The following information, at a minimum, should be recorded for each option transaction:
   A. Transaction date
   B. Quantity, series, class and type of contract (i.e., 10 April 70 IBM CALLS.)
   C. Type of transaction (opening or closing).
   D. Market price of particular option and underlying stock.
   E. Purpose of opening transaction and corresponding security position, if appropriate.
      1. For short covered calls, the specific securities being hedged and the implied returns.
      2. For long puts, the specific securities being hedged.
      3. For short puts, the form of cash that is being escrowed to make total payment at settlement pursuant to an exercise.
      4. For long calls, how the activity is appropriate and beneficial for the particular account (i.e., cash equivalent of aggregate exercise price invested in high interest money market instruments.)
   F. The broker executing the transaction.
   G. Specific account or accounts for which transaction is made.

4. Specific limitations should be set for each type of activity authorized which at least would conform to the position limits, escrow receipt limits, and other limitations specified in the current prospectus of the Options Clearing Corporation. The aggregate outstanding option positions of the trust department must be monitored to ensure compliance with these limitations.

5. All option contracts should be marked to market for valuation purposes, such as when determining unit values for collective investment funds. Such option contracts should be valued at the last available sales price prior to the time of valuation, unless no sale had occurred that day, in which case the last available bid price for long positions and the last available offer price for short positions should be used. In cases where an option is traded on more than one exchange, the exchange designated by the bank as the primary exchange should be used to determine market price. Gains and losses for options should be accounted for in accordance with section 1234 of the Internal Revenue Code. When trust assets are valued, the option contracts should be presented with the corresponding security positions where possible.

6. Bank trust departments should establish other internal controls, including periodic reports to management and internal audit programs to ensure adherence to bank policy and to prevent unauthorized trading in accounts and other abuses.

   A. A central system of monitoring market prices and maturities of option contracts should be established to prevent an unwanted exercise of a short position or an expiration of a long position.

   B. Operations personnel must ensure bank compliance with applicable Federal Reserve requirements regarding option contract margin and settlement procedures.

   C. Responsibility for settlements of option transactions and reconciliation of internal trading reports with external broker confirmations should be vested with someone other than the person executing the transactions.

Paul M. Homan
Senior Deputy Comptroller for Bank Supervision

Appendix IV: Information on FLEX

CBOE FLEX® OPTIONS QUICK REFERENCE SHEET

Overview of FLEX Options

FLEX Options (FLexible EXchange® Options) are customizable options contracts traded at the Chicago Board Options Exchange and cleared by the Options Clearing Corporation. FLEX Options provide the ability to customize key contract terms including strike prices, exercise styles and expiration dates with the transparency, administrative ease and clearing guarantees of standard listed options.

Product Specifications

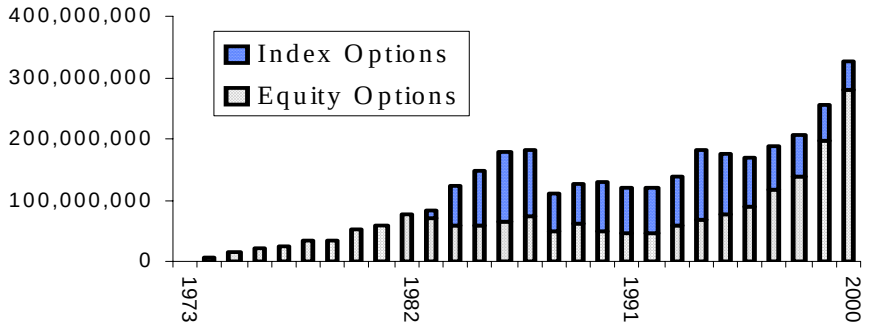
	Index FLEX					Equity FLEX
CONTRACT	**S&P 100•**	**S&P 500•**	**DJIA SM**	**Russell 2000•**	**Nasdaq 100•**	More than 1,300 equities are eligible for Equity FLEX trading.
SYMBOLS						
Ticker	**OEX•**	**SPX ™**	**DJX**	**RUT**	**NDX℠**	Visit www.cboe.com for a current list of symbols.
Exercise Settlement Value	Open (OET) Close (OEX)	Open (SET) Close (SPX)	Open (DJS) Close (DJX)	Open (RLS) Close (RUT)	Open (NDS) Close (NDX)	
EXPIRATION DATE	**Up to 5 years from the trade date**; however, not the 3rd Friday of the month or two business days preceding or following that date.					**Up to 5 years from the trade date**; however, not the 3rd Friday of the month or two business days preceding or following that date.
OPTION TYPE	Put or Call					Put or Call
EXERCISE STYLE	American or European					American or European
STRIKE PRICE	Index value, percent of index value or other methods					Stock price, percent of stock price or other methods
PREMIUM	Percentage of the level of the underlying index or specific dollar amount per contract or contingent on specified factors in other related markets					Percentage of the level of the underlying stock or specific dollar amount per contract
MINIMUM SIZE	Opening new series: $10M underlying value Opening transaction in existing series: $1M underlying value Closing transactions: $1M underlying value or position balance					Opening new series: 250 contracts or $1M underlying value Opening transaction in existing series: 100 contracts Closing transactions: 25 contracts or position balance
TRADING HOURS	9 a.m. to 3 p.m. Chicago Time					9 a.m. to 3 p.m. Chicago Time
POSITION LIMITS	OEX	SPX	DJX	RUT	NDX	No position limits
	No position limits			200,000 contracts on the same side of the market		
EXERCISE SETTLEMENT VALUE	All Index Flex options are cash-settled (U.S.$) For American-style contracts, exercises tendered prior to the expiration date are settled against the closing value of the index on the day of the exercise.					Exercises result in delivery of stock.

Appendix V: Overview of CBOE Products

	S&P 100® Index	S&P 500® Index	Dow Jones Industrial Average℠	Russell 2000® Index	Nasdaq-100 Index®
Symbol	OEX® (OEW and OEZ are used for additional series)	SPX™ (SPB, SPQ, SPZ and SXB are used for additional series)	DJX	RUT (RUZ is used for additional series)	NDX℠ (NDU and NDZ are used for additional series)
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
Multiplier	$100				
Exercise Style	American	European	European	European	European
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
2000 Average Daily Volume	61,530	87,286	14,933	2,998	9,172
2000 Year-End Open Interest	170,183	1,365,342	223,569	21,489	68,108
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 Annual Options Volume

Record volume of 326.4 million options in 2000



CBOE trades options on the following:

Equities & LEAPS®
S&P 100 Index® LEAPS
S&P 500 Index® LEAPS
S&P 500 Index Long-Dated Options
FLEX® Options
Equity FLEX
Index FLEX
Dow Jones Industrial Average℠ (DJX) & LEAPS
The Dow 10 Index℠ (MUT)
Dow Jones Internet Commerce Index℠ (ECM)
Dow Jones REIT Index (DJR)
Dow Jones Transportation Average℠ & LEAPS
Dow Jones Utility Average℠ & LEAPS
Morgan Stanley Multinational 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
CBOE Mexico Index & LEAPS
Nikkei 300® Index & LEAPS
NYSE Composite Index®
CBOE Automotive Index
CBOE Computer Software Index
CBOE Gaming Index
CBOE Gold Index
CBOE Internet Index & LEAPS
CBOE Oil Index & LEAPS
CBOE Technology Index & LEAPS
GSTI™ Composite Index
GSTI Hardware Index
GSTI Internet Index
GSTI Multimedia Networking Index
GSTI Semiconductor Index
GSTI Services Index
GSTI Software Index
S&P® Banks Index
S&P Chemical Index
S&P Health Care Index
S&P Insurance Index
S&P Retail Index Options
S&P Transportation Index
Interest Rate Options & LEAPS

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