Corporate Stock Repurchase Programs & Listed Options

Portfolio Management Strategies

Exploring ways to improve corporate finance by using listed options
# Corporate Stock Repurchase Programs & Listed Options

## Portfolio Management Strategies

**CBOE Investor Series - Paper No. 2**

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In recent years hundreds of U.S. corporations have engaged in programs to repurchase tens of billions of dollars worth of shares of their own stocks. A number of corporations have used options strategies in conjunction with stock buyback programs.

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

Studies have indicated that corporations have implemented stock repurchase programs for a variety of reasons, including: (1) providing a signal to investors that the stock is a good investment; (2) the availability of excess cash; (3) management’s perception that the company’s stock is undervalued; (4) the need for company stock to be provided for stock option and retirement plans; (5) the desire for both an improvement in earnings per share and an increase in the actual price of the stock; (6) the reducing of the company’s cost of capital through the substitution of cheaper debt for more expensive equity; and (7) providing a vehicle for distributing excess cash to shareholders that is more tax-efficient than distributing dividends.

Corporations may utilize listed options in conjunction with a stock repurchase program in an attempt to reduce the overall costs of the program or meet other corporate cash-flow goals. A company that believes the price of its stock will rise in the near future may buy call options or sell put options on its own stock. Some hypothetical examples of how a corporation might use listed options to meet its financial goals are summarized below.
**Portfolio Management Strategies**

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

**A. Selling Put Options on Corporate Stock**

A put option on a stock gives the buyer the right to sell the underlying stock at a specified strike price for a certain, fixed period of time. A company that sells put options receives an upfront premium payment, and makes a commitment to buy back the stock at the strike price if the stock price falls below the strike price and the put is exercised.

The reasons that a company might engage in a put selling program in conjunction with a corporate stock buyback program include: (1) the desire to use the upfront premium proceeds of the options sale to reduce the costs associated with a buyback program; (2) a bullish outlook for the price of the company stock; and (3) a belief that the put options may be favorably mispriced. Although a major long-term goal for a company engaging in a stock repurchase often is to increase the market valuation of the stock, many companies that repurchase stock seek to minimize the costs of engaging in the stock repurchase program. Selling put options can help minimize the net costs of a repurchase program.

As an example of the way in which put options can be used in conjunction with a stock repurchase program, assume that ZYX Company has announced its intention to engage in a plan to repurchase 6 million of its shares in a few months. The company's stock currently is priced at 50 and, although the price is expected to fluctuate during the next six months, the company is bullish on the prospects for price increases over the long term.

ZYX Company decided to write put options against all 6 million shares in the repurchase program. Listed options have a multiplier of 100, so that each option represents 100 shares of stock. Thus, ZYX Company would sell 60,000 ZYX put options to cover the six million shares. The 6-month ZYX put option with a strike price of 45 and an implied volatility of 57% might be quoted at a price of 5. So, in return for selling the 60,000 put options, ZYX Company would receive a total premium of $30 million [which is calculated by multiplying (60,000 options) x ($100 multiplier) x (options price of 5)].

The table below provides a simplified illustration of possible outcomes of the stock buyback program with and without the written puts. For purposes of simplification and illustration, the table assumes that (1) the put options were sold in Month 1, (2) the repurchase of the shares occurred in Month 6, and (3) any exercise of the put options occurred in Month 6. Please note that American-style options may be

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<th>Stock Price in Month 6</th>
<th>Stock Buyback Only</th>
<th>Stock Buyback + Written Puts</th>
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<tr>
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<td>A</td>
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<td></td>
<td>Price paid for each share in Month 6</td>
<td>Price paid for each share in Month 6</td>
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exercised at any time prior to expiration. (In reality, some corporations spread out their stock repurchases over many months, but this table uses a simplified time frame to demonstrate the big picture.)

The $30 million in premiums received will help offset the cost of the buyback program. If the stock price declines below the $45 strike price of the put contracts, ZYX may be assigned and then would be required to purchase the shares at the $45 strike price. The put options could have a net negative impact on the corporation if the stock price goes below $40 prior to expiration, and a net positive impact if the stock price remains above $40 prior to expiration.

B. Buying Call Options on Corporate Stock

A call option on a stock gives the purchaser the right to buy the underlying stock at a specified price for a certain, fixed period of time. The purchase of call options permits a company to set the maximum price at which a stock will be repurchased. In a rising market, the ability to set the maximum price can reduce the costs and risks associated with a stock buyback program.

For example, with ZYX’s common stock at 45, ZYX call options with a strike price of 50 and 90 days to expiration might be bought for a premium of 2, or $200 per call. If ZYX’s common stock price rose from 45 to 55 at the end of 90 days, the calls can be exercised at that time to purchase shares at 50. In this case, net cost to the company for the stock purchase is 52 (including the option premium), a $3 discount to the $55 market price. On the other hand, if the company stock price did not rise above the $50 strike price in the 90-day time period, the options would expire worthless and the company’s costs would include the share repurchase price and the $2 premium. The table below shows some of the many possible scenarios for the impact of the call options on the stock repurchase program.

<table>
<thead>
<tr>
<th>Stock Buyback Only</th>
<th>Stock Buyback + Long Call Option</th>
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<tr>
<td></td>
<td>A</td>
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<tr>
<td>Stock price in Month 3</td>
<td>Price paid for each share in Month 3</td>
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<tr>
<td>30</td>
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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, date and style (e.g., American vs. European). 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. For more information on FLEX, please see Appendix II.

Financial Integrity and Regulation of Exchange-listed Options

The Options Clearing Corporation (OCC) issues all CBOE options contracts and 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 in order 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 its membership standards, OCC's second line of defense against clearing member default is member margin deposits. OCC currently holds billions in aggregate clearing member margin deposits. The third line of defense is the clearing members' contributions to the clearing fund. A member's clearing fund deposit is based upon its options activity and is computed monthly. OCC's clearing fund totals hundreds of millions of dollars.

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

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

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

Overview of Legal, Taxation and Accounting Issues Related to Corporate Use of Listed Options

The following is provided only as general information and should not be relied on as definitive, up-to-date legal or accounting advice. A company contemplating using listed options in conjunction with a stock buyback program should consult its own counsel and accountants before making a final decision with respect to such a program.

A. Corporate Authority To Use Stock Options

- Authority Granted By Articles of Incorporation, By-laws, and/or Board of Directors. A company should review its charter, other company commitments (e.g., the terms of other securities issued by the company, loan agreements, etc.), and authority granted by its Board of Directors to determine
whether it may write puts or purchase calls on its
own stock and purchase its stock upon exercise of
a put or call.

- **Authority Granted By State Law.** Most states
permit corporations to repurchase their own
common stock. Although state business corpora-
tion acts may be silent as to the writing of puts or
the purchasing of calls on a corporation’s common
stock, this power generally may be inferred from
the power to repurchase common stock and the
corporation’s general powers to conduct its affairs.4

**B. Public Disclosure Requirements**

- **No rule of the Securities and Exchange Com-
mission (“SEC”) or any national securities
exchange specifically requires a company to
disclose in advance its intention to buy back
shares of its own stock or to write puts or
purchase calls on such stock.**5

- **However, a company undertaking a stock
repurchase program does have disclosure
obligations under SEC Rule 10b-5.** This is true
whether the stock repurchase program is
executed through open market purchases,
writing puts or a combination of these two
approaches. However, some of these disclosure
requirements can be avoided through the use of
the CBOE’s “European-style” Equity FLEX
(“E-FLEX”) options.

- **Writing Puts.** A company that writes Ameri-
can-style listed puts on its stock must not be in pos-
session of material non-public information at the time
it writes puts, and be prepared at all times to make
full disclosure of material non-public information
that comes into its possession while it maintains a
short position in such puts.6

- **Buying Calls.** A company must not be in pos-
session of material non-public information at the time
it buys calls on its stock. Long calls acquired by a
company, however, may be exercised at any time
regardless of whether, at the time of exercise, the
compny is in possession of material non-public
information.7

- **E-FLEX Options.** E-FLEX equity options can be
tailored to provide for European-style exercise,
i.e., exercisable only on the expiration date.

- **A company that writes European-style E-
FLEX puts need not be concerned about
continuous disclosure of material non-public
information because there is no possibility of
receiving an assignment with respect to such a
position until the expiration date of those puts.

- **Disclosure of material non-public information
is required only at the time of writing such
puts, expiration of such puts, or the closing of a

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4 Some states require the satisfaction of specified tests designed to ensure that repurchases will not leave the corporation with insufficient
capital. Delaware law, for example, provides that a Delaware corporation may not repurchase its own stock when the capital of the
corporation is impaired or when the purchase would cause any impairment of capital. Del. Gen. Corp. L aw § 160(a)(1).

5 However, SEC Rule 10b-5, 17 C.F.R. § 240.10b-5 (1997), has been construed to require disclosure in connection with stock repurchase
programs if the repurchases are “material” to the company. Whether such a program is “material” under a particular company’s
circumstances must be resolved in light of those circumstances by management of the company with the advice of counsel. It may be
good practice to issue a press release announcing the repurchase program.

6 If a company (1) purchases its own stock, (2) writes puts, purchases calls, closes a short put position by purchasing puts, or closes a long
call position by writing calls, or (3) purchases its own stock upon receipt of an exercise notice assignment with respect to a short put
position, without first disclosing material non-public information concerning its business or prospects, those activities would be a
violation of SEC Rule 10b-5.

7 Options exercisable only on the expiration date are known as “European-style” options. Options exercisable at any time prior to
expiration are known as “American-style.” Most conventional listed options are “American-style.”

8 An assignment of an exercise notice in respect of that short put position will result in an automatic and unavoidable purchase of the
underlying stock by the company.

9 A call writer is not making an “investment decision” at the time an exercise notice is assigned. Rather, call writers are obligated to sell
the underlying stock at the call strike price regardless of the market impact that disclosure of the material non-public information might have.
short position in such puts through the purchase of matching E-FLEX puts.

- A company's disclosure obligations with respect to acquisition, maintenance and disposition of a long position in E-FLEX calls, and exercise of such calls, are the same as those discussed above for conventional listed calls.

C. No Registration Under Securities Act of 1933

- A company is not required to register listed put options that it may write on its own stock under the Securities Act of 1933. All listed options are issued by the Options Clearing Corporation, which maintains a continuously effective registration statement with respect to such options.

D. Exchange Act Reports

- Regulation S-X has been amended to require disclosure of accounting policies for derivative financial instruments and the methods of applying those policies that materially affect the determination of financial position, cash flows, or results of operation. This disclosure is more detailed and extensive than that required by Financial Accounting Standards No. 119. The disclosure requirements would apply to put options written and call options purchased by the registrant on its own stock and are effective for filings with the SEC that include financial statements of fiscal periods ending after June 15, 1997.

E. Use of Stock Options During a Distribution (Compliance with SEC Anti-manipulation Rules)

- Bids for and purchases of a company's stock by the company while engaged in a distribution of its stock have long been prohibited (with certain exceptions) by SEC rule - formerly by SEC Rule 10b-6 and currently by SEC Rule 102 of Regulation M.

- Nonetheless, a company may write or maintain an open short position in European-style E-FLEX put options on its own stock during a "distribution" for purposes of SEC Rule 102 of Regulation M, provided that the expiration date of any such put occurs after the termination of

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10 Regulation S-X sets forth the requirements for financial statements filed with quarterly reports on Form 10-Q and annual reports on Form 10-K, as well as other reports and filings that include financial statements.

11 See Regulation S-X § 4-08(n), 17 C.F.R. § 210.4-08(n).

12 Form 10-Q, Part I, Item 3; Form 10-K, Part II, Item 7A. Banks, thrifts and companies with market capitalizations on January 28, 1997 in excess of $2.5 billion must provide this disclosure in filings with the SEC that include annual financial statements for fiscal years ending after June 15, 1997. Other Exchange Act registrants (except “small business issuers” as defined in SEC Rule 12b-2 of the Exchange Act) must provide this disclosure in filings with the SEC that include financial statements for fiscal years ending after June 15, 1998. Regulation S-K, General Instruction 1 to Paragraphs 305(a), 305(b), 305(c), 305(d), and 305(e); paragraph 305(e).

13 “Market risk sensitive instruments” include “derivative financial instruments,” which include options. Regulation S-K, General Instructions to Paragraphs 305(a) and 305(b), paragraph 3.A.
the distribution. Rule 102 also permits a company to purchase and maintain an open long position in standardized calls on its own stock during a distribution of that stock, and in the absence of manipulative intent, to exercise such calls during the distribution.14

F. “Safe Harbor” of SEC Rule 10b-18

• Complying with the requirements of SEC Rule 10b-18 under the Exchange Act provides a “safe harbor” from allegations that a company has manipulated its stock price when a company seeks to repurchase a significant amount of its own shares.

• A company’s put writing or call buying does not affect its ability to make bids for and purchases of its stock that qualify for the “safe harbor” afforded by SEC Rule 10b-18 (for example, in connection with a stock repurchase program).15

However, the “safe harbor” is unavailable for a company’s put writing, call purchasing or purchases of stock upon exercise of such puts and calls.16

G. Compliance with Tender Offer Rules

• Option Transactions Do Not Constitute Tender Offer. The following transactions do not appear to constitute or to be regarded by the securities bar as a tender offer subject to SEC Rule 13e-4 under the Exchange Act (the “issuer tender offer rule”).17

• The writing of puts by an issuer of the underlying stock.

• The purchase of calls on such stock by the issuer.

• The purchase of stock by the issuer upon the exercise of such options.

14 Release no. 33-7375, 34-38067, Anti-manipulation Rules Concerning Securities Offerings, 60 F.R. 520, at 525 (adopting release for Regulation M). As a result of what may be an oversight in the drafting of Regulation M, a company cannot purchase stock upon exercise of a put during a distribution of stock by the company without obtaining an exemption from SEC Rule 102 of Regulation M. This problem need not concern a company that closes out all outstanding short listed puts and any outstanding E-FLEX puts that have an expiration date between commencement and termination of the distribution before commencing a distribution and that refrains from writing such puts while a distribution is in progress. An E-FLEX put with an expiration date beyond the date of termination of a distribution of stock by the company, however, need not be closed out to ensure compliance with SEC Rule 102 of Regulation M.

15 A company’s writing of a put or purchase of a call, or purchase of stock upon exercise of a put or call, does not count toward its daily stock buying volume limit under SEC Rule 10b-18, 17 C.F.R. § 240.10b-18 (1997). To avoid engaging in conduct that could be viewed as having a manipulative effect on the market, however, a company should consider refraining from writing puts or purchasing calls on a day when it is making SEC Rule 10b-18 purchases.

16 A company therefore must take care, in consultation with its counsel, to avoid writing puts or buying calls in such volumes, at such times, or with exercise prices and expiration dates that, considered together under the company’s circumstances, could expose it to charges of market manipulation.

17 A tender offer subject to SEC Rule 13e-4, 17 C.F.R. § 240.13e-4 (1997), is an offer by a company to buy a substantial number of shares of a class of outstanding equity securities of the company at a stated price, generally at a premium over the current market price, from some or all current holders of the class within a specified time, usually with the requirement that a specified minimum percentage of the class be tendered. A 1991 SEC no-action letter grants an exemption from SEC Rule 13e-4 for issuer-written standardized puts that comply with the following requirements:

(i) The issuer may write only “out-of-the-money” standardized put options on a national securities exchange;

(ii) In establishing put option positions, the issuer may write puts on its own stock only to the extent that, on the day the puts are written, purchases of the underlying stock by the issuer if the puts were to be immediately exercised, together with any other purchases of common stock by the issuer on that day, would not exceed the daily trading volume limitation included in SEC Rule 10b-18(b)(4)(i), whether or not the aggregate number of shares of common stock underlying the puts would constitute a block as defined in SEC Rule 10b-18(a)(14); the issuer may effect put writing transactions through only one broker-dealer on any single day; and the issuer may not effect any put writing transactions in the opening rotation for such options or within one-half hour before the regularly scheduled close of trading for the stock underlying such puts on the principal market for those stocks;

(iii) The issuer complies with the position limit rules of the relevant options exchange;

(iv) An issuer may not engage in any standardized option transactions for the purpose of creating actual or apparent active trading in, or raising or depressing the price of, its securities.

For the purpose of the daily trading volume limitation of SEC Rule 10b-18, the “no-action letter” states that an issuer is deemed to have purchased the shares underlying standardized put options only at the time the standardized put options are written. Chicago Board Options Exchange, Inc. (available February 22, 1991), 1991 SEC No-Act. LEXIS 335, at *11 - *13.
Option Transactions Not Permitted During Self-Tender Offer. SEC Rule 10b-13 under the Exchange Act prohibits a company that is engaged in a tender offer for its own stock from purchasing or making any arrangement to purchase its shares otherwise than through the tender offer, from announcement of the offer through its completion date. A company should not write puts or purchase calls during a tender offer for its own shares and should close out any existing short position in standard listed puts before commencing any such tender offer.18

If a company were to write a put or purchase a call on its own stock during such a tender offer, it would be deemed to have entered into an arrangement to purchase its shares otherwise than through the tender offer, in contravention of SEC Rule 10b-13.

Similarly, a purchase of stock upon receipt of an exercise notice in respect of a short put position or upon exercise of a long call during the pendency of the offer also would violate the rule.

Option Transactions Permitted During a Third-Party Tender Offer. Under SEC Rule 13e-1, a company may purchase its stock during a third-party tender offer if it has filed with the SEC and sent to its stockholders a statement setting out certain information about the purchase.

If a company is willing to conform and has conformed to the conditions set out in the CBOE no-action letter, however, such purchases may be made without compliance with Rule 13e-1 in settlement of the exercise of a put option written by the company before the commencement of the third-party tender offer.

Although the CBOE no-action letter does not address call options purchased by the company, no reason appears why the relief from Rule 13e-1 would not be granted by the SEC for call options acquired before commencement of such a tender offer.

H. Position Limits

Exchanges place limits on the number of standardized options on the same underlying security that a customer may control on the same side of the market.19 The precise limit depends on factors, such as the recent trading volume in the stock and the total number of shares outstanding.

On a pilot basis, effective through September 9, 1999, there are no position limits with respect to positions maintained in equity FLEX options. Companies may write E-FLEX put options and purchase E-FLEX call options without limit on the number of options held.21

I. Tax Consequences of Writing Puts/Buying Calls22

Writing Puts on Own Stock. No gain or loss is recognized in consequence of:

- The company’s receipt of a premium payment.
- The company’s purchase of its stock upon being assigned an exercise notice.
- The expiration of a put unexercised.

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18 A short position in European style E-FLEX puts, however, may remain outstanding if the expiration date of such option is at least ten business days after the termination date of any such tender offer (to assure compliance with the requirements of SEC Rule 13e-4(f) under the Exchange Act in the event an exercise notice with respect to that position is assigned to the company). A long call position in standard listed calls or E-FLEX listed calls acquired before commencing such a tender offer may be maintained during the tender offer. No long calls owned by a company, however, may be exercised until the expiration of ten business days after termination of the offer.

19 Position limits effectively limit the combined outstanding number of standard put options that the company has written and standard call options that the company has purchased on its own stock at any time. NASD position limits do not apply to over-the-counter puts written by the issuer of the underlying stock.


21 SR-CBOE-79 (September 9, 1997).

• The company’s close-out of a put by purchasing an offsetting put.

• **Buying Calls on Own Stock.** No gain or loss is recognized in consequence of:
  • The company’s payment of premiums.
  • The company’s purchase of its stock upon exercise of a call.
  • The expiration of a call unexercised.
  • The company’s close-out of a call by selling an offsetting call.

**J. Financial Accounting**

The following is a brief synopsis of current financial accounting requirements for short put and long call option positions on a company’s own stock. The Financial Accounting Standards Board ("FASB") is in the process of revising these requirements. The adoption of the proposed standard should not affect accounting treatments as they relate to short put positions. Long calls appear to be treated under the proposed standard as assets rather than equity instruments.23

• **Accounting for Short Puts (Current).** The aggregate premium received from a sale of put options on a company’s own stock should be recorded as a credit to permanent equity. An amount equal to the aggregate exercise price of the put options should be transferred from permanent equity to temporary equity. Subsequent changes in market value of the options should not be recorded. The equity section of the balance sheet is adjusted only when the options are redeemed or exercised, or at expiration.

If a company closes a short put position by repurchasing outstanding puts, the amount paid for the puts should be debited to permanent equity. An amount equal to the aggregate exercise price of the puts should be transferred from temporary equity to permanent equity.

• **Accounting for Long Calls (Current).** There is no express authority as to the accounting treatment of long calls. However, the appropriate treatment can be inferred by analogy to short puts. The aggregate premium paid for a purchase of call options on a company’s own stock should be recorded as a debit to permanent equity. An amount equal to the aggregate exercise price of the call options should be transferred from permanent equity to temporary equity. Subsequent changes in the market value of the options should not be recorded. The equity section of the balance sheet is adjusted only when the options are redeemed or exercised, or at expiration.

If the company closes a long call position by selling calls, the amount received for the calls should be credited to permanent equity. The aggregate exercise price of the calls should be transferred from temporary equity to permanent equity.

• **Accounting for Exercise or Expiration (Current).**

  If a company purchases its stock when an outstanding short put or long call is exercised, the aggregate purchase price should be debited to temporary equity. The shares received should be transferred from shares outstanding to treasury stock.

  If outstanding short puts or long calls expire unexercised, the aggregate exercise price of the puts or calls should be transferred from temporary equity to permanent equity.

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

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Conclusion

Options trading strategies can be effective tools for limiting the costs and risks associated with corporate stock buyback programs. In recent years, more corporate treasurers have found that options trading strategies can provide great assistance in pursuing stated corporate goals. Options strategies can be quick and efficient, providing additional income through the sale of put options, and lowered costs of future stock purchases in a rising market, through the purchase of call options on corporate stock.
Appendix I: Glossary of Options Terms

American-style Option: An option contract that may be exercised at any time between the date of purchase and 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: A n option that gives the holder the right to buy an underlying instrument, such as a stock, or an index value, at a specified price for a certain, fixed period of time.

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

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

Clearing Member: A member firm of the Clearing Corporation.

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

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

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

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

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

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

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

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

Exercise price: (See Strike price)

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

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

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

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

Holder: The purchaser of an option.

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

Intrinsic value: The amount by which an option is in-the-money (see above definition).
LEAPS®: Long-term Equity Anticipation Securities, or LEAPS, are long-term stock or index options. LEAPS, like all options, are available in two types, calls and puts, with expiration dates up to three years in the future.

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

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

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

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

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

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

**Out-of-the-money:** A call option is out-of-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, a futures contract or an index value, at a specified price for a certain, fixed period of time.

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

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

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

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

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

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

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

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

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

**Writer:** The seller of an option contract.
### Appendix II: 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

<table>
<thead>
<tr>
<th><strong>Index FLEX</strong></th>
<th><strong>Equity FLEX</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONTRACT</strong></td>
<td>S&amp;P 100®</td>
</tr>
<tr>
<td><strong>SYMBOLS</strong></td>
<td>OEX®</td>
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<tr>
<td><strong>Ticker</strong></td>
<td>Open (OET)</td>
</tr>
<tr>
<td><strong>Exercise</strong></td>
<td>Close (OEX)</td>
</tr>
<tr>
<td><strong>Settlement</strong></td>
<td>Value</td>
</tr>
<tr>
<td><strong>Expiration</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Option Type</strong></td>
<td>Put or Call</td>
</tr>
<tr>
<td><strong>Exercise Style</strong></td>
<td>American or European</td>
</tr>
<tr>
<td><strong>Strike Price</strong></td>
<td>Index value, percent of index value or other methods</td>
</tr>
<tr>
<td><strong>Premium</strong></td>
<td>Percentage of the level of the underlying index or specific dollar amount per contract or contingent on specified factors in other related markets</td>
</tr>
<tr>
<td><strong>Minimum Size</strong></td>
<td>Opening new series: $10M underlying value Opening transaction in existing series: $1M underlying value Closing transactions: $1M underlying value or position balance</td>
</tr>
<tr>
<td><strong>Trading Hours</strong></td>
<td>9 a.m. to 3 p.m. Chicago Time</td>
</tr>
<tr>
<td><strong>Position Limits</strong></td>
<td>OEX</td>
</tr>
<tr>
<td><strong>Limit</strong></td>
<td>No position limits</td>
</tr>
<tr>
<td><strong>Exercise Settlement Value</strong></td>
<td>All Index Flex options are cash-settled (U.S.$)</td>
</tr>
</tbody>
</table>
Appendix III: Overview of CBOE Products

<table>
<thead>
<tr>
<th>Symbol</th>
<th>S&amp;P 100® Index</th>
<th>S&amp;P 500® Index</th>
<th>Dow Jones Industrial AverageSM</th>
<th>Russell 2000® Index</th>
<th>Nasdaq-100 Index®</th>
<th>CBOE trades options on the following:</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>OEX®</td>
<td>SPXTM</td>
<td>DJX</td>
<td>RUT</td>
<td>NDXSM</td>
<td><strong>Equities &amp; LEAPS®</strong></td>
</tr>
<tr>
<td></td>
<td>(OEW and OEZ are used for additional series)</td>
<td>(SPB, SPQ, SPZ and SXB are used for additional series)</td>
<td></td>
<td>(RUZ is used for additional series)</td>
<td>(INDU and NDZ are used for additional series)</td>
<td>S&amp;P 100 Index LEAPS</td>
</tr>
<tr>
<td>Underlying</td>
<td>Capitalization-weighted index of 100 stocks</td>
<td>Capitalization-weighted index of 500 stocks</td>
<td>Price-weighted index of 30 stocks. Options are based on 1/100th of the DJIA level</td>
<td>Capitalization-weighted index of 2000 stocks</td>
<td>Modified capitalization-weighted index of 100 stocks</td>
<td>S&amp;P 500 Index LEAPS</td>
</tr>
<tr>
<td>Multiplier</td>
<td>$100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Russell 2000® Index LEAPS</td>
</tr>
<tr>
<td>Exercise Style</td>
<td>American</td>
<td>European</td>
<td>European</td>
<td>European</td>
<td>European</td>
<td>S&amp;P 500/BARRA Growth Index</td>
</tr>
<tr>
<td>Expiration Months</td>
<td>4 near-term months plus 1 additional month from the March quarterly cycle</td>
<td>3 near-term months plus 3 additional months from the March quarterly cycle</td>
<td>3 near-term months plus 3 additional months from the March quarterly cycle</td>
<td>Up to 3 near-term months plus 3 additional months from the March quarterly cycle</td>
<td>Up to 3 near-term months plus 3 additional months from the March quarterly cycle</td>
<td>Dow Jones Utility AverageSM &amp; LEAPS</td>
</tr>
<tr>
<td>2000 Average Daily Volume</td>
<td>61,530</td>
<td>87,286</td>
<td>14,933</td>
<td>2,998</td>
<td>9,172</td>
<td>Morgan Stanley Multinational Company IndexSM</td>
</tr>
<tr>
<td>2000 Year-End Open Interest</td>
<td>170,183</td>
<td>1,365,342</td>
<td>223,569</td>
<td>21,489</td>
<td>68,108</td>
<td>Russell 2000® Index &amp; LEAPS</td>
</tr>
<tr>
<td>Trading Hours</td>
<td>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 CBOE direct screen-based trading system.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dow Jones Industrial AverageSM (DJX) &amp; LEAPS</td>
</tr>
</tbody>
</table>

CBOE Annual Options Volume

Record volume of 326.4 million options in 2000

Index Options
Equity Options

www.cboe.com institutional@cboe.com
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