

# LONG-TERM EQUITY ANTICIPATION SECURITIES®

LEAPS®



### **The Options Industry Council**

**(OIC)** is a non-profit association created to educate the investing public and brokers about the benefits and risks of exchange-traded options. Options are a versatile but complex product and that is why OIC conducts hundreds of seminars throughout the year, distributes educational software and brochures, and maintains a web site focused on options education.

All seminars are taught by experienced options instructors who provide valuable insight on the challenges and successes that individual investors encounter when trading options. In addition, the content in our software, brochures and web site has been created by options industry experts. All OIC-produced information has been reviewed by appropriate compliance and legal staff to ensure that both the benefits and risks of options are covered.

OIC was formed in 1992. Today, its sponsors include BATS Options Exchange, BOX Options Exchange, Chicago Board Options Exchange, C2 Options Exchange, International Securities Exchange, Miami International Securities Exchange, LLC, NASDAQ OMX PHLX, NASDAQ Options Market, NYSE Amex Options, NYSE Arca Options and OCC. These organizations have one goal in mind for the options investing public: to provide a financially sound and efficient marketplace where investors can hedge investment risk and find new opportunities for profiting from market participation. Education is one of many areas that assist in accomplishing that goal. More and more individuals are understanding the versatility that options offer their investment portfolio, due in large part to the industry's ongoing educational efforts.

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2015

# Introduction

The purpose of this booklet is to provide an introductory understanding of exchange-listed, long-term options called LEAPS® (Long-term Equity AnticiPation Securities<sup>SM</sup>) and how they can be used. LEAPS may be listed on all U.S. option exchanges. Like trading in stocks, options trading is regulated by the Securities and Exchange Commission (SEC).

Option exchanges seek to provide competitive, liquid and orderly markets for the purchase and sale of standardized options. All option contracts traded on U.S. securities exchanges are issued, guaranteed and cleared by OCC. OCC is a registered clearing corporation with the SEC and plays a critical role in the U.S. capital markets as the exclusive clearinghouse for exchange-traded options. OCC's conservative financial and procedural safeguards, substantial and readily available financial resources, and its members' mutual incentives protect the organization from settlement losses.

While this discussion will focus on general characteristics of LEAPS, specific classes of LEAPS can have slightly different contract specifications. Before investing, you should determine the specific terms of each product class. This and other information on LEAPS, or on option products not included in this booklet, can be obtained by contacting the appropriate exchange or The Options Industry Council (OIC). In addition, OIC publishes the booklets *Understanding Equity Options* and *Understanding Index Options*, which cover the basics of exchange-listed equity and index options respectively, and are available to all investors contemplating the use of LEAPS. These booklets can be obtained either by calling 1-888-OPTIONS or by visiting OIC's web site, **[www.OptionsEducation.org](http://www.OptionsEducation.org)**. This introductory booklet should be read in conjunction with the

options disclosure document, *Characteristics and Risks of Standardized Options*, which outlines the purposes and risks of option transactions. Despite their many benefits, options are not suitable for all investors.

Individuals should not enter into option transactions until they have read and understood this risk disclosure document which can be obtained from their broker, by calling 1-888-OPTIONS, or by visiting **[www.OptionsEducation.org](http://www.OptionsEducation.org)**. It must be noted that despite the efforts of each exchange to provide liquid markets, under certain conditions it may be difficult or impossible to liquidate an option position. Please refer to the disclosure document for further discussion on this risk and other risks associated with listed options. In addition, margin requirements, transaction and commission costs and tax ramifications of buying or selling options should be discussed thoroughly with a broker and/or tax advisor before engaging in option transactions.

**Note:** *For the sake of simplicity, the calculations of profit and loss amounts in this booklet do not account for the impact of commissions, transaction costs and taxes.*

## Options Basics

Exchange-listed options are flexible financial tools that offer investors a variety of ways to manage their investment portfolios. *Equity options*, based on individual underlying stock issues, are widely used by investors:

- To buy (sell) an underlying stock at a lower (higher) price
- To benefit from a rise or decline in an underlying stock price without having to incur the cost of buying or selling shares outright
- To protect underlying stock holdings from a decline in market price
- To increase income from underlying stock holdings

Investors may also employ *index options*, which may be based on underlying stock indexes, to achieve many of the same objectives:

- To benefit from a rise or decline in the level of an underlying index without the cost of buying or selling shares of multiple component stocks outright
- To protect a portfolio of stocks from a decline in market price
- To increase income from their stock portfolios

Generally speaking, a listed option is a contract with standardized terms. A *call* option grants the buyer (*holder*) the right, but not the obligation, to buy a specified amount of the underlying asset at a predetermined price on or before a given date. A *put* option grants the buyer the right, but not the obligation, to sell a specified amount of the underlying asset at a predetermined price on or before a given date. In order to buy or sell the underlying asset at this predetermined price (the *strike price* or *exercise price*) the option holder must *exercise* the contract.

*\*Definitions for italicized words in bold can be found*

*in the glossary section of this booklet.*

On the other hand, a call option seller (*writer*) has the obligation to sell, and a put option seller the obligation to buy, a specified amount of the underlying asset at a predetermined price (the strike price or exercise price) if *assigned* an exercise notice on or before a given date.

Equity options are known as physical-delivery contracts because shares of underlying stock (generally 100) change hands when an equity option is exercised. Index options are known as cash-settled contracts as only cash (the *exercise settlement amount*) changes hands after an index option is exercised.

## Benefits of LEAPS

Like regular, shorter-term equity and index options, LEAPS offer the investor an opportunity to either capitalize on an expected move (up or down) in an underlying stock or index, to generate portfolio income, or to protect holdings in their underlying instruments. The difference is that LEAPS have longer-term expirations than those of regular-term options, which generally expire within eight months after being listed.

### **Time**

A distinguishing feature of LEAPS is their longer-term expirations. Thus, an investor who makes decisions for the long term can benefit from buying LEAPS calls or puts. Longer lifetimes provide contract buyers more time for a favorable move in an underlying stock or index.

### **Diversification**

Historically, the stock market has provided investors significant and positive returns over the long term, but few investors purchase shares in each company they follow. Investors can buy equity LEAPS calls to diversify their portfolios. Because one equity

LEAPS call purchase requires less cash than buying an equivalent number of underlying shares (usually 100), investors can participate in the upside potential of numerous underlying stocks with less outlay of investment capital.

Index LEAPS enable investors to gain exposure to the market as a whole or to specific segments of the market with one trading decision and frequently with one transaction. To obtain the same level of diversification using individual stock issues or individual equity option classes, numerous decisions and transactions would be required. Employing index options can defray both the costs and complexities of doing so.

### **Flexibility – More Time**

LEAPS, like regular, shorter-term equity and index options, are an extremely versatile investment tool. Through simple LEAPS call or put positions, or through combinations of LEAPS with each other, with shorter-term option contracts and/or other financial instruments, investors can create a variety of either hedged or speculative positions to act on longer-term outlooks.

### **Predetermined Risk for the Buyer**

Unlike other investments where the risks may have no limit, LEAPS offer a known risk to buyers just as do shorter-term options. A LEAPS buyer absolutely cannot lose more than the price, or premium, paid for the option.

### **Leverage**

LEAPS can provide the same leverage as shorter-term options. This means an option buyer can pay a relatively small premium for market exposure in relation to the contract value. An investor can see large percentage gains from favorable, relatively small percentage moves in the underlying stock or index. If the underlying instrument does not move as anticipated, the buyer's risk is limited to the premium paid. However, because of this leverage, a small adverse move in the market can result in a substantial or complete loss of the buyer's premium. Option writers can bear substantially greater, if not

unlimited, risk.

### **Guaranteed Contract Performance**

An option holder is able to look to the system created by OCC's By-Laws and Rules rather than to any particular option writer for performance. Through that system, OCC guarantees performance to selling and purchasing clearing members, eliminating counterparty credit risk. Prior to the existence of option exchanges and OCC, an option holder who wanted to exercise an option depended on the ethical and financial integrity of the writer or his brokerage firm for performance. Furthermore, there was no convenient means of closing out one's position prior to the expiration of the contract.

OCC, as the common clearing entity for all exchange-traded options transactions, resolves these difficulties. Once OCC is satisfied that there are matching trades from a buyer and a seller, it severs the link between the parties. In effect, OCC becomes the buyer to the seller and the seller to the buyer. As a result, the seller can buy back the same option he has written, closing out the initial transaction and terminating his obligation to deliver the underlying stock or exercise value of the option to OCC, and this will in no way affect the right of the original buyer to sell, hold or exercise his option. All premium and settlement payments are made between OCC and its clearing members. In turn, OCC clearing members settle independently with their customers (or brokers representing customers).

## **LEAPS – The Contracts**

LEAPS (Long-term Equity Anticipation Securities) are simply long-term option contracts, and like regular-term options are available in two types, calls and puts. There are two categories of LEAPS: equity LEAPS and index LEAPS.

The factors affecting the prices of equity and

index LEAPS are the same as for their regular-term counterparts: value of the underlying instrument (a stock or an index), strike price, *volatility*, time until expiration, interest rates, and dividends paid by an underlying stock or the component securities of an index. The characteristics of equity and index LEAPS contracts being *in-the-money*, *at-the-money* or *out-of-the-money*, as well as intrinsic value and time value are also the same as shorter-term equity and index options.

LEAPS may have fewer available strike prices compared to regular-term contracts in a given option class. LEAPS are not available for all equity and index option classes. Generally, only the most active classes (with higher contract volume) will have LEAPS listed for trading.

## **Equity LEAPS**

The standardized terms of equity LEAPS options are generally the same as regular-term equity options.

## **Rights vs. Obligations**

Equity LEAPS grant the holder, in exchange for the payment of a *premium*, the right to buy (for a call) or sell (for a put) shares of underlying stock (generally 100) at the strike price if the holder exercises the contract. In exchange for premium received, an equity LEAPS writer has the obligation to sell (for a call) or buy (for a put) shares of underlying stock at the strike price if assigned.

## **Premium**

Equity LEAPS premiums are quoted on a per underlying share basis, and are stated in points and decimal amounts, with one point equaling \$100. For example, a quoted premium of \$1.00 equals \$100, \$1.25 equals \$125, \$1.50 equals \$150, \$2.00 equals \$200, etc.

## **Expiration**

Equity LEAPS may have expirations up to approximately three years after the contracts are first listed, and they generally expire in January of their expiration years.

## Expiration Date

The current expiration date for equity LEAPS is the third Friday of the expiration month.

## Exercise Style

Equity LEAPS are generally *American-style* contracts. In other words, a call or put holder may exercise, and a writer may be assigned, at any time prior to expiration.

## Index LEAPS

The standardized terms of index LEAPS options are generally the same as regular-term index options.

## Rights vs. Obligations

Index LEAPS grant the holder, in exchange for the payment of a premium, the right to buy (for a call) or sell (for a put) the value of the underlying index at the strike price times the contract multiplier (generally \$100) if the holder exercises the contract. (All references to dollars are in U.S. dollars.) In exchange for premium received, an index LEAPS writer has the obligation to sell (for a call) or buy (for a put) the value of the underlying index at the strike price times the contract multiplier if assigned.

## Contract Multiplier

The multiplier of an index LEAPS contract is generally \$100.

## Cash Settlement

During the settlement process, the *exercise settlement amount* (of cash) is paid by the assigned option writer to a holder who exercises an index LEAPS contract. This amount is calculated as the difference between the strike price of the option and the level of the underlying index reported as its *exercise settlement value*, or its *intrinsic value*, times the contract multiplier of \$100.

## Premium

Index LEAPS premiums are quoted in points and decimal amounts, with one point equaling \$100.

For example, a quoted premium of \$1.00 equals \$100, \$1.25 equals \$125, \$1.50 equals \$150, \$2.00 equals \$200, etc.

### **Expiration**

Index LEAPS may have expirations up to approximately five years after the contracts are first listed. Available expiration months may vary among different option classes.

### **Expiration Date**

The current expiration date for index LEAPS is the third Friday of the expiration month.

### **Exercise Style**

Index LEAPS may have *European-style* or American-style exercise features, but generally have the same exercise style as regular-term options on the same underlying index (same option class).

### **When New LEAPS Are Listed**

Generally speaking, LEAPS contracts (for an option class that has LEAPS available for trading) with a new expiration year are listed when the expiration date of the currently listed LEAPS is nine months or less away. A near-term LEAPS, i.e., one whose expiration is nine months or less away, is considered a regular-term option contract without any affect to the terms of the option contract, its premium amount or its existing symbology key.

## **Basic LEAPS Strategies**

The versatility of equity and index LEAPS, just as regular-term options, stems from the variety of strategies available to the investor. The most basic strategies involving the use of LEAPS are explained in the following examples. These scenarios are based on hypothetical situations and should be considered only examples of potential trading approaches. Other strategies that might be

used with regular-term options, such as spreads and straddles, can also be employed with LEAPS. For more information about these and other LEAPS strategies, consult with your broker.

**Note:** *For purposes of illustration, commission and transaction costs, tax considerations and the costs involved in margin accounts have been omitted from the following examples. These factors will affect a strategy's potential return, so always check with your brokerage firm and tax advisor before entering into these or any other option strategies. For illustrative purposes, the LEAPS positions in all of the following examples are shown to be held until expiration. The premium amounts used are intended to be reasonable, but in reality will not necessarily exist in the marketplace at or prior to expiration for a similar option.*

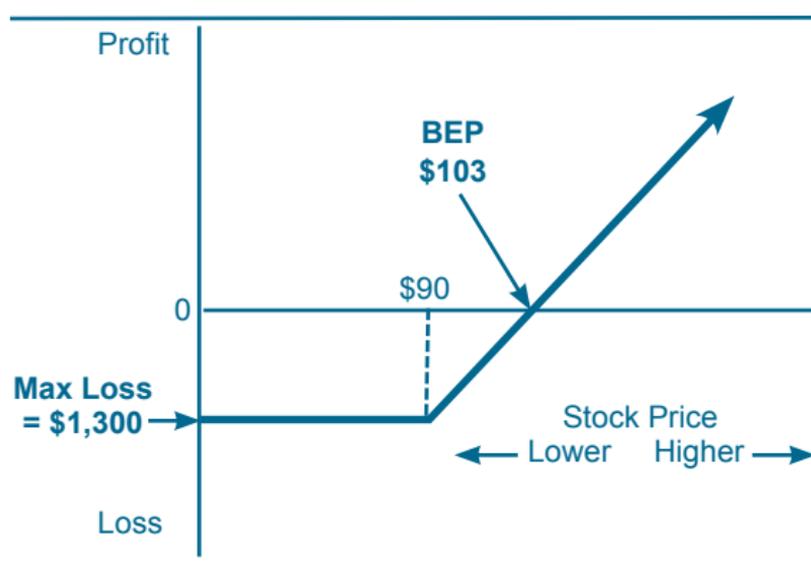
## **Buying and Selling Equity LEAPS**

One equity LEAPS contract represents to its buyer the right to buy (in the case of a call) or sell (in the case of a put) generally 100 shares of underlying stock at the strike price at any time until the option expires, up to three years into the future. As an American-style contract, an equity LEAPS call or put may be exercised by its holder at any time up to and including the contract's last trading day by giving exercise instructions to his broker. The writer of an equity LEAPS option, on the other hand, has an obligation to fulfill the terms of the contract, to buy (in the case of a put) or sell (in the case of a call) underlying shares, if assigned. Assignment on equity LEAPS contracts can occur at any time before the options expire.

As with all options, the holder of an equity LEAPS call or put can close out the position by selling the contract in the marketplace if it has value, to either realize a profit or cut a loss, at any time before expiration. Doing so terminates the holder's rights to buy or sell underlying stock. The writer of a LEAPS call or put can also close out

a position at any time before expiration, to either realize a profit or cut a loss, by making an offsetting purchase transaction. If done so before an exercise notice is assigned to the position, the writer terminates any obligations to buy or sell underlying stock per the terms of that contract.

## Buying Equity LEAPS Calls



Market outlook: Bullish to very bullish over the long term

Goal: Positioning to profit from an increase in the price of the underlying stock

You are anticipating an increase in the price of a particular stock over the next two years. You want to establish a bullish position on this stock without having to commit the cash for a purchase of 100 shares, and that provides the potential for leveraged profits on the upside. LEAPS calls based on this stock are available, so your decision is to purchase one contract with the understanding that there is a possibility you may lose the entire premium you pay for the option.

An equity LEAPS call provides the buyer an opportunity to participate in any underlying stock price increase above a predetermined break-even point (BEP) until expiration. As with any call option, the buyer has unlimited profit potential tied

to the strength of advances in the underlying stock's price. The maximum loss at expiration is limited to the premium paid for the call contract no matter how low the stock price might decline.

## **Scenario**

Assume the stock that interests you, XYZ, is currently trading at a price of \$80 per share. You decide to buy one XYZ two-year 90 LEAPS call for a quoted price of \$13 (per underlying share). Your total cost for this LEAPS call is therefore \$1,300 ( $\$13 \times 100$ ) which is your maximum loss if the price of XYZ is not above the strike price of \$90 when the call expires. The break-even point (BEP) at expiration is an XYZ price of \$103 (strike price \$90 + premium paid \$13) because the XYZ 90 call would be worth its intrinsic value \$13, which is what you originally paid for it. The higher the price of XYZ stock is above the break-even point of \$103 at expiration, the greater your profit.

## **Possible Outcomes at Expiration**

### *1. XYZ above the break-even point (\$103):*

If at expiration XYZ has advanced to \$110, the in-the-money XYZ 90 call will be worth its intrinsic value of \$20 (stock price \$110 – strike price \$90), or \$2,000 total. Your net profit in this case, if you sold the call for its intrinsic value, would be \$700 (total call value \$2,000 – total premium paid \$1,300). As another choice, if you want to own XYZ stock you could exercise the expiring in-the-money call and purchase 100 XYZ shares at the \$90 strike price, for a net purchase price of \$103 per share (strike price \$90 + premium paid per share \$13).

As an alternative, you could exercise the call to buy 100 XYZ shares at the strike price of \$90 and simultaneously sell the shares for \$110 in the marketplace at \$20 per share profit. Your net profit, in this case, would be \$700 (profit on stock transaction \$2,000 – call premium paid \$1,300).

Because of the added cost of a stock sale, investors whose objective is not to acquire underlying stock generally choose to sell an expiring in-the-money call rather than buying the stock through a call exercise and selling the shares.

### *2. XYZ between strike price (\$90) and break-even point (\$103):*

If at expiration XYZ has advanced to \$95, the in-the-money XYZ 90 call will be worth its intrinsic value of \$5 (stock price \$95 – strike price \$90), or \$500 total. If in this case you sold the call for its intrinsic value, the \$500 you would receive would be less than the total cost of the call. Your partial loss would be \$800 (total premium paid \$1,300 – total call value \$500), or approximately 62% of your original investment.

Alternatively, if you want to own the XYZ shares after expiration you could exercise the expiring in-the-money call and purchase 100 XYZ shares at the \$90 strike price. Your net purchase price would be \$103 per share (strike price \$90 + call premium paid per share \$13), or at an unrealized loss of \$8 per share compared to the current XYZ price of \$95.

### *3. XYZ below strike price (\$90):*

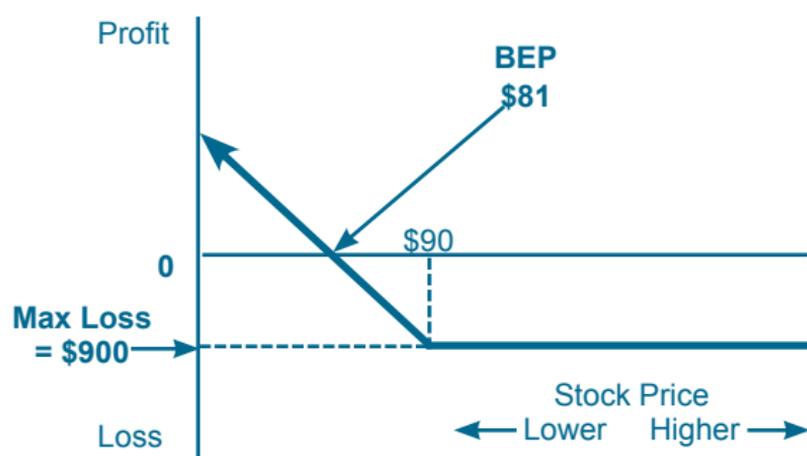
If at expiration XYZ closes at any point below the \$90 strike price, say \$75, the call would expire out-of-the-money and with no value. In this case, your loss would be the total investment of \$1,300 paid for the call. **Note:** *No matter how far XYZ has declined below the \$90 strike price, your loss will not exceed \$1,300.*

**Buy XYZ 90 LEAPS Call at \$13**  
**With XYZ at \$80**  
**Total Cost for Call = \$1,300**

XYZ price at expiration	XYZ advances to \$110 (above BEP)	XYZ advances to \$95 (between strike and BEP)	XYZ declines to \$75 (below strike)
Value of call at expiration	+\$2,000	+\$500	0 (out-of-the-money)
Less total premium paid for call	-\$1,300	-\$1,300	-\$1,300
Net profit/loss*	+\$700	-\$800	-\$1,300

\*Exclusive of commissions, transaction costs and taxes.

**Buying Equity LEAPS Puts**



Market outlook: Bearish to very bearish over the long term

Goal: Positioning to profit from a decrease in the price of the underlying stock

You are anticipating a decline in the price of particular stock over the next two years. You want to establish a bearish position on this stock without having to commit the cash required for a short sale of 100 shares, and that provides the potential for leveraged profits on the downside. LEAPS puts based on this stock are available, so your decision is to purchase one contract, with the understanding that there is a possibility you may lose the entire premium you pay for the option.

An equity LEAPS put provides the buyer an opportunity to participate in any underlying stock price decrease below a predetermined break-even point until expiration. As with any put option, the buyer's profit potential is substantial as the underlying stock continues to decline, and is limited only by a potential decrease in the stock's price to no less than zero. The maximum loss at expiration is limited to the premium paid for the put contract no matter how high the underlying stock price might increase.

## **Scenario**

Assume the stock that interests you, XYZ, is currently trading at a price of \$100 per share. You decide to buy one XYZ two-year 90 LEAPS put for a quoted price of \$9 (per underlying share). Your total cost for this LEAPS put is therefore \$900 ( $\$9 \times 100$ ), which is your maximum loss if the price of XYZ is not below the strike price of \$90 when the put expires. The break-even point (BEP) at expiration is an XYZ price of \$81 (strike price \$90 – premium paid \$9) because the XYZ 90 put would be worth its intrinsic value \$9, which is what you originally paid for it. The lower the price of XYZ stock is below the break-even point of \$81 at expiration, the greater your profit.

## **Possible Outcomes at Expiration**

### *1. XYZ below the break-even point (\$81):*

If at expiration XYZ has declined to \$75, the in-the-money XYZ 90 put will be worth its intrinsic value of \$15 (strike price \$90 – stock price \$75), or \$1,500 total. Your net profit in this case, if you sold the put for its intrinsic value, would be \$600 (total put value \$1,500 – total premium paid \$900). As another choice, if you want a short position in XYZ stock you could exercise the expiring in-the-money put and sell short 100 XYZ shares at the \$90 strike price, for a net sale price of \$81 per share (strike price \$90 – premium paid per share \$9). The resulting position of short 100 XYZ shares would generally require a substantial margin requirement as well as involve unlimited upside risk.

As an alternative, you could purchase 100 shares of

XYZ at the price of \$75 and simultaneously exercise the put to sell the shares at the strike price of \$90 at \$15 per share profit. Your net profit in this case would be \$600 (profit on stock transactions \$1,500 – put premium paid \$900).

Because of the added cost of a stock purchase, investors whose objective is not a short sale of underlying stock generally choose to sell an expiring in-the-money put rather than buy stock and sell the shares by exercising the put.

### *2. XYZ between strike price (\$90) and break-even point (\$81):*

If at expiration XYZ has declined to \$85, the in-the-money XYZ 90 put will be worth its intrinsic value of \$5 (strike price \$90 – stock price \$85), or \$500 total. If in this case you sold the put for its intrinsic value, the \$500 you would receive would be less than the total cost of the put. Your partial loss would be \$400 (total premium paid \$900 – total put value \$500), or approximately 44% of your original investment.

Alternatively, if you want a short position in XYZ shares after expiration you could exercise the expiring in-the-money put and sell 100 XYZ shares at the \$90 strike price. Your net sale price would be \$81 per share (strike price \$90 – put premium paid per share \$9), or at an unrealized loss of \$4 per share compared to the current XYZ price of \$85.

### *3. XYZ above strike price (\$90):*

If at expiration XYZ closes at \$105, the put would expire out-of-the-money and with no value. In this case, your loss would be the total investment of \$900 paid for the put. **Note:** *No matter how much XYZ has increased above the \$90 strike price, your loss will not exceed \$900.*

## **Buy XYZ 90 LEAPS Put at \$9**

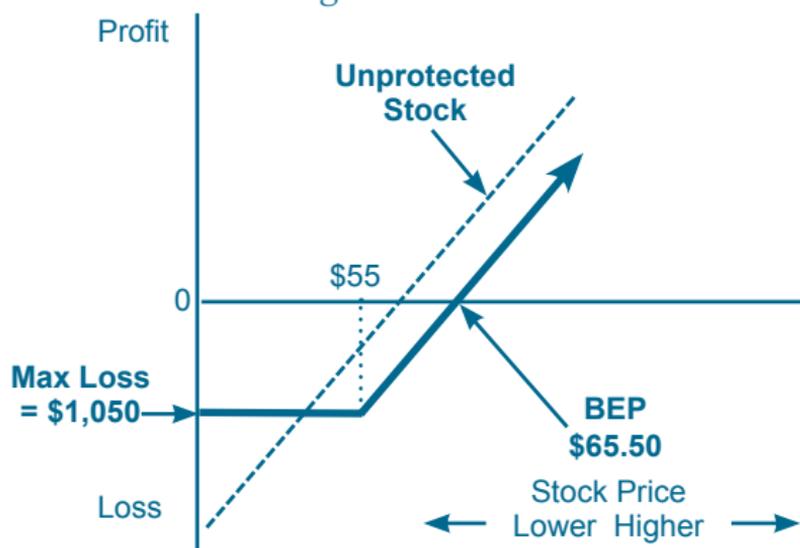
**With XYZ at \$100**  
**Total Cost for Put = \$900**

XYZ price at expiration	XYZ declines to \$75 (below BEP)	XYZ declines to \$85 (between strike and BEP)	XYZ advances to \$105 (above strike)
Value of put at expiration	+\$1,500	+\$500	0 (out-of-the-money)
Less total premium paid for put	-\$900	-\$900	-\$900
Net profit/loss*	+\$600	-\$400	-\$900

\*Exclusive of commissions, transaction costs and taxes.

**Buying Equity LEAPS Puts to Protect a Long Stock Position**

Market outlook: Bullish to very bullish over the long term



Goal: Positioning for upside profit on a stock purchase with long-term downside protection

You are anticipating an increase in the price of a particular stock over the next two years, but you want to establish a bullish position without the downside risk of stock ownership. Your decision is to establish a “married” equity LEAPS put, or the simultaneous purchase of both shares of stock and a LEAPS put based on those underlying shares. This

strategy establishes a minimum selling price for the stock at the put's strike price during the lifetime of the put.

A married put investor retains all benefits of stock ownership, but “insures” the underlying shares against an unacceptable decrease in value as long as the long put is owned. The investor also has an opportunity to participate in any underlying stock price increase above a predetermined break-even point (BEP) until expiration, with unlimited profit potential tied to the strength of advances in the underlying stock's price.

With the price of the underlying stock at or below the strike price of the put at expiration the investor has two choices. First, the put could be exercised and the underlying shares sold at their guaranteed sale price, the strike price of the put. In this case, the net sale price for those shares would be the strike price less the put premium paid per share. Second, if the investor sells the in-the-money put for its intrinsic value, profit (or loss) seen from its sale would be combined with any unrealized loss on the stock purchase for a limited net loss. The maximum loss for the strategy is equal to the premium paid for the put plus the difference, if any, between the purchase price of the stock and the strike price of the put. This maximum loss would occur if the stock price has declined to any point at or below the put's strike price by expiration, no matter how low.

## **Scenario**

Assume the stock that interests you, XYZ, is currently trading at a price of \$60 per share. You decide to buy 100 XYZ at \$60 per share, as well as one XYZ two-year 55 LEAPS put for a quoted price of \$5.50 (per underlying share). The total cost of the 100 XYZ shares is \$6,000 ( $\$60 \times 100$ ). At a total cost of \$550 ( $\$5.50 \times 100$ ) for the LEAPS put, you have guaranteed a sale price for your 100 XYZ shares at the \$55 strike price. Your total investment is therefore \$6,550. Your maximum loss, no matter how low the price of XYZ might decline, is limited to the \$550 put premium paid + \$500 potential stock loss (stock purchase price \$60 – put strike price \$55, for each share) or \$1,050 total. The break-even point (BEP) at expiration is

an XYZ price of \$65.50 (stock purchase price \$60 + premium paid \$5.50) because at this point the \$5.50 per share profit on the stock would pay for the \$5.50 cost of the LEAPS put. The higher the XYZ stock price is above the break-even point of \$65.50 at expiration, the greater your profit on your 100 shares.

## **Possible Outcomes at Expiration**

### *1. XYZ above the break-even point (\$65.50):*

If at expiration XYZ has advanced to \$75, the XYZ 55 put will expire out-of-the-money and with no value. However, you would have an unrealized stock profit of \$15 per share on the XYZ stock purchased at \$60, or \$1,500 total. Your net profit would be \$9.50 (stock profit per share \$15 – put premium paid per share \$5.50), or \$950 total. You retain the 100 shares of XYZ and can buy another put for continued downside price protection.

### *2. XYZ between strike price (\$55) and break-even point (\$65.50):*

If at expiration XYZ has advanced to \$61, the XYZ 55 put would expire out-of-the-money and with no value. However, you would have an unrealized stock profit of \$1 per share on the XYZ stock purchased at \$60. In this case your net partial loss would be \$4.50 (put premium paid per share \$5.50 – stock profit per share \$1), or \$450 total. You retain the 100 shares of XYZ and can buy another put for continued downside price protection.

### *3. XYZ below strike price (\$55):*

If at expiration XYZ has declined to \$47, the put would expire in-the-money and be worth its intrinsic value of \$8.00 (strike price \$55 – stock price \$47), or \$800 total. If you want to retain the XYZ shares at this point you could sell the put for its intrinsic value of \$8 at a \$2.50 profit (put sale price per share \$8.00 – put purchase price per share \$5.50), or \$250 total. The unrealized loss on the XYZ shares at expiration would be \$13 per share

(stock purchase price \$60 – stock price at expira-

tion \$47), or \$1,300 total. The net result would be a loss of \$10.50 (stock loss per share \$13 – profit on put sale per share \$2.50), or \$1,050 total. You keep the 100 shares of XYZ and can buy another put for continued downside price protection.

Alternatively, if you want to sell the XYZ stock at the guaranteed sale price of \$55 (put strike price) at expiration then you could exercise the put and deliver the 100 underlying shares. Your net sale price for the stock would be \$49.50 per share (stock sale price \$55 – put premium paid \$5.50), or \$4,950 total. Your net realized loss for this married put strategy would be \$10.50 per share (stock purchase price \$60 – net stock sale price \$49.50), or \$1,050 total. **Note:** *No matter how far XYZ has declined below the \$55 strike price, your loss will not exceed \$1,050.*

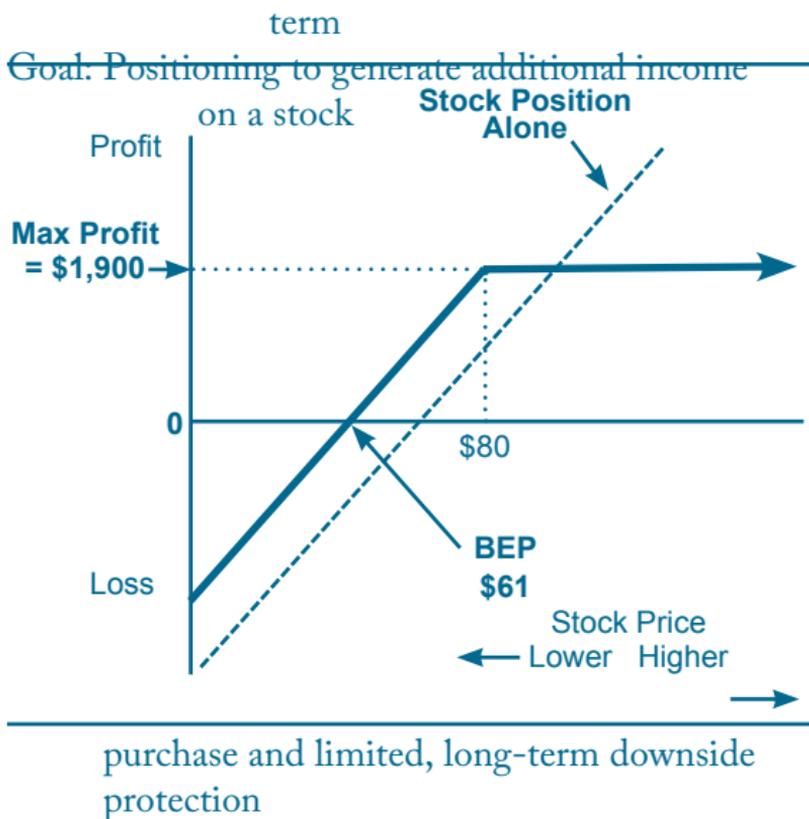
**Buy XYZ 55 LEAPS Put at \$5.50 (\$550)**  
**Buy 100 XYZ Shares at \$60 (\$6,000)**  
**Total Investment = \$6,550**

XYZ price at expiration	XYZ advances to \$75 (above BEP)	XYZ advances to \$61 (between strike and BEP)	XYZ declines to \$47 (below strike)
<b>Total stock profit/loss at expiration</b>	+\$1,500	+\$100	-\$1,300
<b>Total put profit/loss at expiration</b>	-\$550 (out-of-the money)	-\$550 (out-of-the money)	+\$250
<b>Net profit/loss*</b>	+\$950	-\$450	-\$1,050

\*Exclusive of commissions, transaction costs and taxes.

## Selling Covered Equity LEAPS Calls

Market outlook: Neutral to bullish over the long



Although you are bullish and want to own a particular stock, you expect little change in its market price over the next 18 months. Your decision is to buy underlying shares, and to generate additional income (over any dividend) from your investment by writing a covered equity LEAPS call, receiving and keeping the premium from its sale. The same premium amount will also provide a limited degree of downside protection on your stock purchase.

A covered call, which is selling (writing) a call against underlying stock you have purchased, is a widely used, conservative option strategy. It is utilized to both increase the return on the underlying stock and to provide a limited degree of downside stock price protection. The covered call writing investor retains all benefits of stock ownership while holding the underlying shares. However, with an increase in stock price the investor may be assigned on the call position and be obligated to sell those shares at the LEAPS call strike price, which limits the upside profit potential for this strategy. The maximum profit is realized when the stock price is at or above the call's strike price at expiration. The maximum profit amount is equal to the premium received from the call's sale plus the difference (if any) between the call's strike price and the stock purchase price.

On the downside, the maximum loss is potentially significant and stems from stock ownership. Losses will mount as the underlying stock continues to decline below the predetermined break-even point (BEP) at expiration, but these losses will be at least partially offset by the premium received from the sale of the LEAPS call.

## **Scenario**

Assume the stock that interests you, XYZ, is currently trading at a price of \$70 per share. You decide to buy 100 XYZ at \$70 as well as write one XYZ 18-month 80 LEAPS call for a quoted price of \$9 (per underlying share). The total cost of the XYZ shares is \$7,000 ( $\$70 \times 100$ ). The total premium received from the sale of the LEAPS call is \$900 ( $\$9 \times 100$ ).

At expiration, your limited maximum profit will be realized if XYZ is at or above the call's \$80 strike price. With the stock at the strike price of \$80, assignment would not be expected on the expiring at-the-money XYZ 80 call, so you would keep your XYZ shares at a \$10 per share unrealized profit plus the call premium received. With XYZ above the \$80 strike price at expiration, you could expect assignment on the call. You would sell your shares as obligated for \$80, at a \$10 per share profit, plus you keep the call premium received. Your maximum profit amount would therefore be \$19 (call premium received \$9 + stock profit per share \$10), or \$1,900 total.

The break-even point (BEP) at expiration is an XYZ price of \$61 (stock purchase price \$70 – call premium received \$9) because the \$9 per share loss on the stock purchase would be offset by the \$9 premium received from selling the call. The lower the price of XYZ stock is below the break-even point of \$61 at expiration, the greater your loss on those shares.

## **Possible Outcomes at Expiration**

### *1. XYZ at or above the strike price (\$80):*

If at expiration XYZ has advanced to \$85, you could expect assignment on the XYZ 80 call and have the

obligation to sell your 100 XYZ shares at the \$80 strike price. In this case, you would have a realized profit of \$10 per share on the XYZ stock purchased at \$70, as well as keep the premium received from the call's sale. Your net profit for this covered call would be the maximum \$19 (stock profit per share \$10 + call premium received per share \$9) or \$1,900 total. **Note:** *No matter how far XYZ has advanced above the \$80 strike price, your profit will not exceed \$1,900.*

### **2. XYZ between strike price (\$80) and break-even point (\$61):**

If at expiration XYZ remains unchanged at \$70, the XYZ 80 call would expire out-of-the-money and with no value. You would have no profit or loss on the stock purchase, but would have a total profit of \$900 received from the call's sale, which you keep. You retain the 100 shares of XYZ, and can write another call to generate more income and provide additional limited downside price protection.

### **3. XYZ below break-even point (\$61):**

If at expiration XYZ has declined to \$55, the XYZ 80 call would expire out-of-the-money and with no value. You would have an unrealized loss of \$15 per share on the XYZ stock purchased at \$70, however you keep the \$9 call premium received, which would partially offset this stock loss. Your net loss would be \$6 (stock loss per share \$15 – call premium received per share \$9), or \$600 total. You retain the 100 shares of XYZ, and can write another call to generate more income and provide additional limited downside price protection.

**Sell XYZ 80 LEAPS Call at \$9 (\$900)**

**Buy 100 XYZ Shares at \$70 (\$7,000)**

**Net Investment = \$6,100**

<b>XYZ price at expiration</b>	<b>XYZ advances to \$85 (above strike)</b>	<b>XYZ at \$70 (between strike and BEP)</b>	<b>XYZ declines to \$55 (below BEP)</b>
<b>Total stock profit/loss at expiration</b>	+\$1,000 (assigned at \$80)	0	-\$1,500
<b>Total call premium received and kept</b>	+\$900	+\$900 (out-of-the money)	+\$900 (out-of-the money)
<b>Net profit/loss*</b>	+\$1,900	+\$900	-\$600

*\*Exclusive of commissions, transaction costs and taxes.*

## **Buying and Selling Index LEAPS**

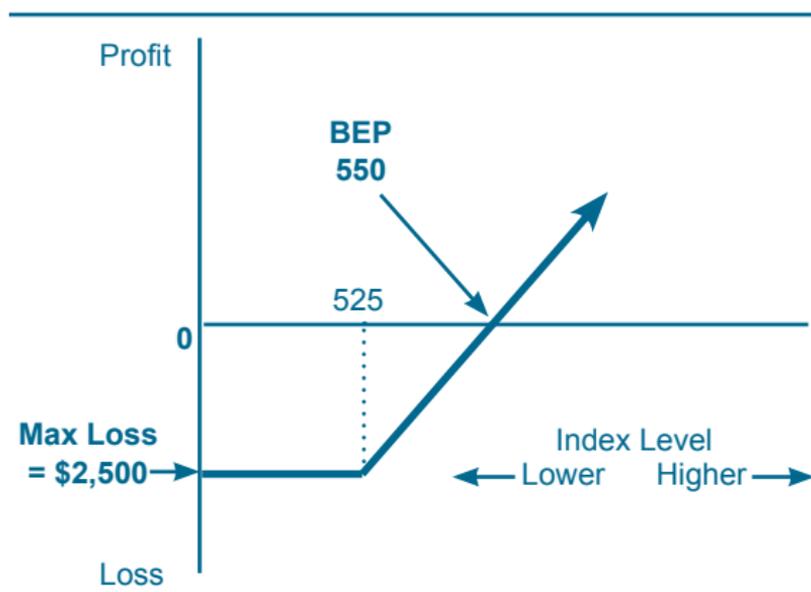
An index LEAPS call or put represents to its buyer the right to receive the exercise settlement amount upon exercise of an in-the-money contract. For an American-style contract, this right may be exercised at any time before the option expires; for a European-style contract, this right may be exercised only at its expiration.

The writer of an index LEAPS call or put, on the other hand, has an obligation to pay the exercise settlement amount if assigned on an in-the-money contract. Assignment on an American-style contract can occur at any time before the option expires; assignment on a European-style can occur only at its expiration.

As with all option contracts, the holder of an index LEAPS call or put can ordinarily close out the position by selling the contract in the marketplace if it has value, to either realize a profit or cut a loss, at any time before expiration. Doing so terminates the holder's rights to exercise the option and receive cash. The writer of a LEAPS call or put can also ordinarily close out a position at any time before expiration, to either realize a profit or cut a loss, by making an offsetting purchase transaction. If done so before an exercise is assigned to his posi-

tion, the writer terminates his obligation to pay the exercise settlement amount. **Note:** *Certain index LEAPS options are based on a fractional value of the underlying index. Available strike prices as well as option premiums will reflect this reduced value.*

## Buying Index LEAPS Calls



Market outlook: Bullish to very bullish over the long term

Goal: Positioning to profit from an increase in the level of the underlying index

You are anticipating an increase in the level of a particular index over the next eighteen months. You want to establish a bullish position on this index that provides the potential for leveraged profits on the upside. LEAPS calls based on this index are available, so your decision is to purchase one contract with the understanding that there is a possibility you may lose the entire premium you pay for the option.

An index LEAPS call provides the buyer an opportunity to participate in any increase in the underlying index level above a predetermined break-even point (BEP) until expiration. As with any call option, the buyer has unlimited profit potential tied to the strength of advances in the underlying index. The maximum loss at expiration is limited to the premium paid for the call contract no matter how low the index might decline.

## Scenario

Assume the index that interests you, XYZ, is currently at a level of 500. You decide to buy one XYZ 18-month 525 LEAPS call for a quoted price of \$25. Your total cost for this LEAPS call is therefore \$2,500 ( $\$25 \times \$100$  multiplier), which is your maximum loss if the level of index XYZ is not above the strike price of 525 when the call expires. The break-even point (BEP) at expiration is an XYZ level of 550 (strike price 525 + premium paid \$25) because the XYZ 525 call would be worth its intrinsic value of \$25 (exercise settlement value 550 – strike price 525), which is what you originally paid for it. The higher the level of XYZ index is above the break-even point of 550 at expiration, the greater your profit.

## Possible Outcomes at Expiration

### 1. XYZ index above the break-even point (550):

If at expiration the level of XYZ index has advanced to 560, the XYZ 525 call will be in-the-money.

Upon exercise, you would receive the exercise settlement amount of \$3,500: (exercise settlement value 560 – strike price 525) x \$100 multiplier. Your total profit in this case would be \$1,000 (settlement amount received \$3,500 – call premium paid \$2,500).

### 2. XYZ index between strike price (525) and break-even point (550):

If at expiration the level of XYZ index has advanced to 535, the XYZ 525 call will be in-the-money.

Upon exercise, you would receive the exercise settlement amount of \$1,000: (exercise settlement value 535 – strike price 525) x \$100 multiplier. Your partial loss in this case would be \$1,500 (call premium paid \$2,500 – settlement amount received \$1,000), or 60% of your total investment.

### 3. XYZ below strike price (525):

If at expiration the level of XYZ index is at 490, the call would expire out-of-the-money and with no value. In this case, your loss would be the total

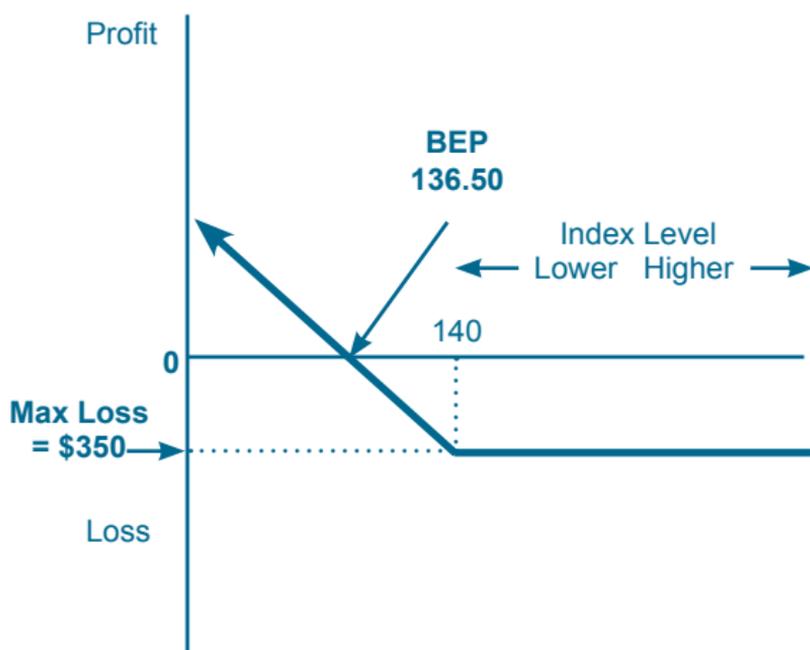
investment of \$2,500 paid for the call. **Note:** No matter how far XYZ index has declined below the 525 strike price, your loss will not exceed \$2,500.

**Buy XYZ Index 525 LEAPS Call at \$25**  
**With XYZ Index at 500**  
**Total Cost for Call = \$2,500**

XYZ index level at expiration	XYZ index advances to 560 (above BEP)	XYZ index advances to 535 (between strike and BEP)	XYZ index declines to 490 (below strike)
Exercise settlement amount for call at expiration	+\$3,500	+\$1,000	0 (out-of-the money)
Less total premium paid for call	-\$2,500	-\$2,500	-\$2,500
Net profit/loss*	+\$1,000	-\$1,500	-\$2,500

\*Exclusive of commissions, transaction costs and taxes.

**Buying Index LEAPS Puts**



Market outlook: Bearish to very bearish over the long term

Goal: Positioning to profit from a decrease in the level of the underlying index

You are anticipating a decrease in the level of a

particular index over the next eighteen months. You want to establish a bearish position on this index that provides the potential for leveraged profits on the upside. LEAPS puts based on this index are available, so your decision is to purchase one contract with the understanding that there is a possibility you may lose the entire premium you pay for the option.

An index LEAPS put provides the buyer an opportunity to participate in any decrease in underlying index level below a predetermined break-even point (BEP) until expiration. As with any put option, the buyer's profit potential is substantial as the underlying index continues to decline, and is limited only by a potential decrease in the index's level to no less than zero. The maximum loss at expiration is limited to the premium paid for the put contract no matter how low the index might decline.

## **Scenario**

Assume the index that interests you, XYZ, is currently at a level of 150. You decide to buy one XYZ 18-month 140 LEAPS put for a quoted price of \$3.50. Your total cost for this LEAPS put is therefore \$350 ( $\$3.50 \times \$100$  multiplier), which is your maximum loss if the level of XYZ index is not below the strike price of 140 when the put expires. The break-even point (BEP) at expiration is an XYZ exercise settlement value of 136.50 (strike price 140 – premium paid \$3.50) because the XYZ 140 put would be worth its intrinsic value of \$3.50 (strike price 140 – exercise settlement value 136.50), which is what you originally paid for it. The lower the level of index XYZ is below the break-even point of 136.50 at expiration, the greater your profit.

## **Possible Outcomes at Expiration**

1. *XYZ index below the break-even point (136.50):*  
If at expiration the level of XYZ index has declined to 135, the XYZ 140 put will be in-the-money.

Upon exercise, you would receive the exercise settlement amount of \$500: (strike price 140 – exercise settlement value 135) x \$100 multiplier. Your total profit in this case would be \$150 (settlement amount received \$500 – put premium paid \$350).

*2. XYZ index between strike price (140) and break-even point (136.50):*

If at expiration the level of XYZ index has declined to 138, the XYZ 140 put will be in-the-money.

Upon exercise, you would receive the exercise settlement amount of \$200: (strike price 140 – exercise settlement value 138) x \$100 multiplier. Your partial loss in this case would be \$150 (put premium paid \$350 – settlement amount received \$200), or 43% of your total investment.

*3. XYZ above strike price (140):*

If at expiration the level of XYZ index is at 160, the put would expire out-of-the-money and with no value. In this case, your loss would be the total investment of \$350 paid for the put. **Note:** *No matter how high XYZ index has advanced above the 140 strike price, your loss will not exceed \$350.*

**Buy XYZ Index 140 LEAPS Put at \$3.50  
With XYZ Index at 150  
Total Cost for Put = \$350**

XYZ index level at expiration	XYZ index declines to 135 (below BEP)	XYZ index declines to 138 (between strike and BEP)	XYZ index advances to 160 (above strike)
Exercise settlement amount for put at expiration	+\$500	+\$200	0 (out-of-the money)
Less total premium paid for put	-\$350	-\$350	-\$350
Net profit/loss*	+\$150	-\$150	-\$350

\*Exclusive of commissions, transaction costs and taxes.

# LEAPS GLOSSARY

**American-style option:** An option contract that may be exercised at any time between the date of purchase and the expiration date.

**Assignment (equity):** The allocation of an exercise notice to 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.

**Assignment (index):** The allocation of an exercise notice to an index option writer (seller) that obligates him to pay (in the case of a call or put) the cash settlement amount for a particular index option if it is exercised by its holder.

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

**At-the-money (index):** An index option is at-the-money if the strike price of the option is equal to the current level of the underlying index.

**Call:** An option contract that gives the holder the right to buy the underlying instrument at a specified price for a certain, fixed period of time.

**Cash settlement:** The process by which the terms of an index option contract are fulfilled through the payment or receipt in dollars of the amount by which the option is in-the-money, as opposed to delivering or receiving the underlying instrument.

**Class of options:** Option contracts of the same type (call or put) that cover the same underlying security or index.

**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.

**Component securities:** Securities whose prices are used to calculate a given index.

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

**Equity options:** Options on shares of an individual equity interest.

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

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

**Exercise (index):** To implement the right under which the holder of an index option is entitled to receive from an assigned writer (in the case of a call or a put) the contract's exercise settlement amount.

**Exercise price:** See **Strike price**.

**Exercise settlement amount (index):** 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.

**Exercise settlement value (index):** The level of an underlying equity index used to calculate the cash settlement amount.

**Expiration date:** The day on which an option contract becomes void. All holders of options must indicate their desire to exercise, if they wish to do so, by this date.

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

**Holder:** The purchaser of an option.

**Index:** A compilation of several stock prices into a single number used as a benchmark against which financial or economic performance is measured.

**In-the-money (equity):** An equity 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.

**In-the-money (index):** An index call option is in-the-money if the strike price is less than the current level of the underlying index. An index put option is in-the-money if the strike price is greater than the current level of the underlying index.

**Intrinsic value:** The amount by which an option is in-the-money.

**LEAPS:** Long-term Equity Anticipation Securities, or LEAPS, are long-term equity or index options.

**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):** For customer level margin, the amount an option writer is required to deposit and maintain with his broker 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.

**Out-of-the-money (equity):** An equity 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.

**Out-of-the-money (index):** An index call option is out-of-the money if the strike price is greater than the level of the underlying index. A put option is out-of-the-money if the strike price is less than the level of the underlying index.

**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 the underlying instrument at a specified price for a certain, fixed period of time.

**Sector:** A distinct subset of a market, industry, or economy whose components share similar characteristics.

**Series:** All options of the same class that have the same strike price and expiration date.

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

**Strike price (equity):** 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.

**Strike price (index):** The strike price (or exercise price) of a cash-settled option is the base for the determination of the amount of cash (exercise settlement amount), if any, that the option holder is entitled to receive upon exercise.

**Time value:** The portion of the 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.

**Underlying index:** The equity index on which a class of index options is based.

**Underlying security:** The property that is deliverable upon exercise of the option contract.

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

**Writer:** The seller of an option contract.

# For More Information

## **BATS Options Exchange**

[www.batsoptions.com](http://www.batsoptions.com)

## **BOX Options Exchange**

[www.bostonoptions.com](http://www.bostonoptions.com)

## **Chicago Board Options Exchange**

[www.cboe.com](http://www.cboe.com)

## **C2 Options Exchange**

[www.c2exchange.com](http://www.c2exchange.com)

## **International Securities Exchange**

[www.ise.com](http://www.ise.com)

## **Miami International Securities Exchange, LLC**

[www.miaxoptions.com](http://www.miaxoptions.com)

## **NASDAQ OMX PHLX**

[www.nasdaqtrader.com](http://www.nasdaqtrader.com)

## **NASDAQ Options Market**

[www.nasdaqtrader.com](http://www.nasdaqtrader.com)

## **NYSE Amex Options**

[www.nyse.com](http://www.nyse.com)

## **NYSE Arca Options**

[www.nyse.com](http://www.nyse.com)

## **OCC**

[www.theocc.com](http://www.theocc.com)

## **The Options Industry Council**

[www.OptionsEducation.org](http://www.OptionsEducation.org)

# Notes

# Notes



