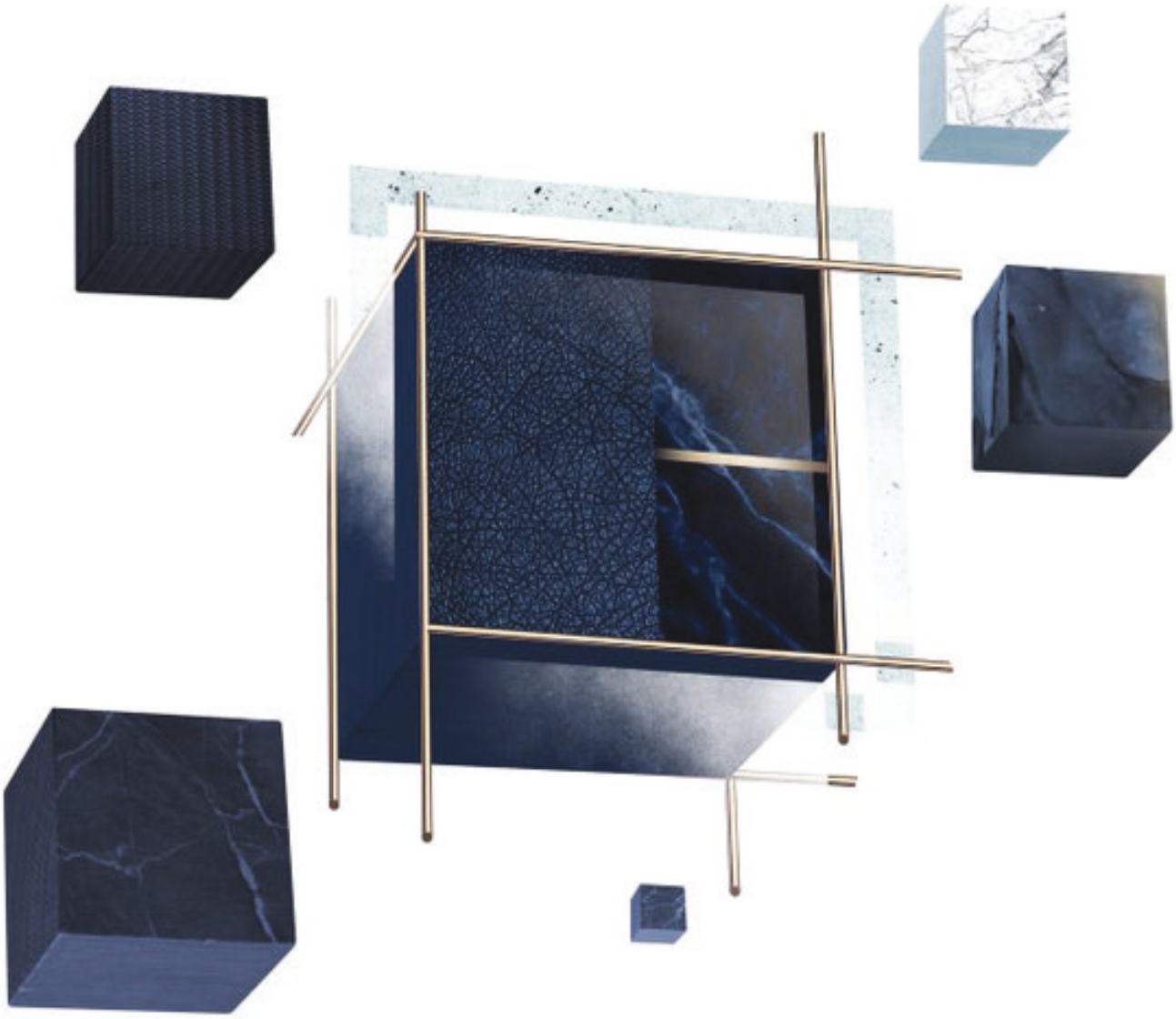
Private Bank

citi®

Hedging and Liquidity Strategies

for concentrated stock positions listed on the US exchanges

Global Capital Markets



Contents

Introduction

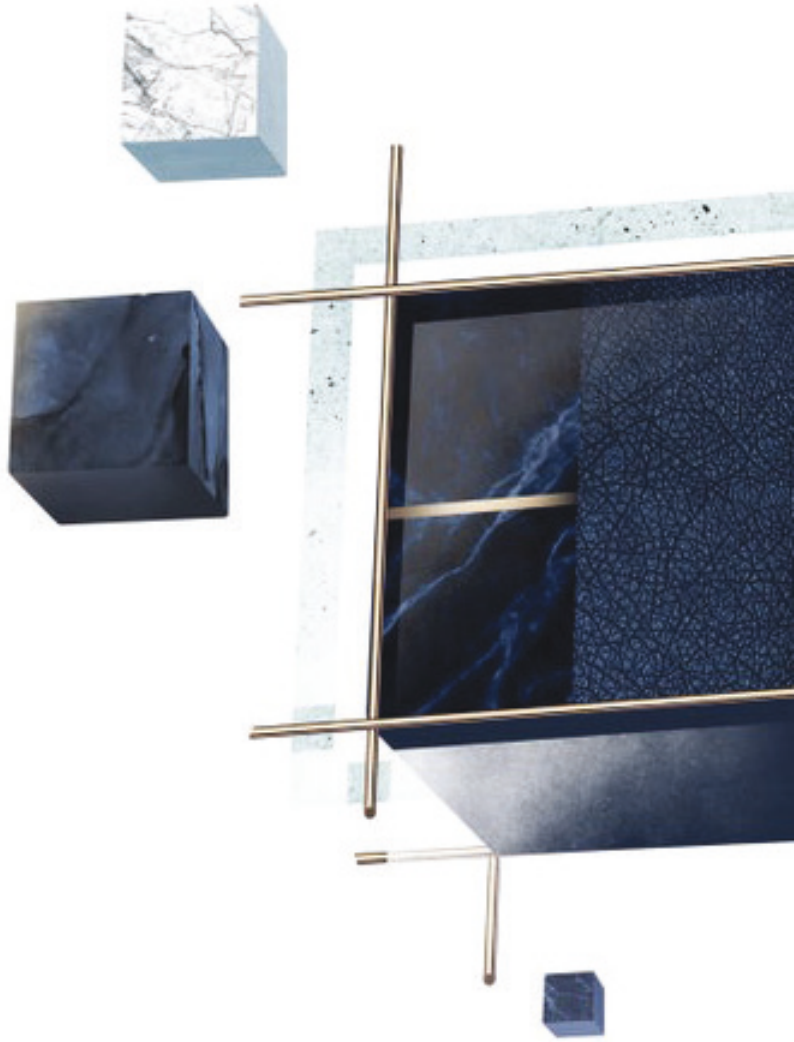
With the growth in stock-for-stock acquisitions, initial public offerings and the U.S. equity markets, many investors are faced with the challenge of managing the risks associated with low cost basis and restricted stock holdings (generally referred to as "concentrated equity positions"). Holders of concentrated equity positions may often neglect to hedge or diversify their exposure due to a sense of loyalty to a stock that has performed well in the past, or to a company in which the investors have a controlling relationship. As a result, investors may be over-exposed to unexpected company and market events, economic cycles and tax liabilities during cash flow "crunch" times. This publication aims to describe strategies that may enable investors of concentrated stock positions to:

- Preserve capital by providing protection against a decrease in the value of a stock
- Generate liquidity or "monetize" the value of a stock position
- Diversify the exposure from a single stock holding to another asset and/or
- Defer the capital gains tax associated with an outright sale of the securities

Private Market Strategies

The strategies detailed in this publication that involve the purchase or sale of an equity option can be created by utilizing listed or over-the-counter equity options ("OTC" options). Options listed on an exchange ("listed options"), such as the Chicago Board Options Exchange, generally have predetermined strike prices, expirations, exercise features and settlement features. OTC options, which are privately negotiated financial instruments and are not traded on an exchange, can be customized to meet an investor's specific financial objectives. Additional strategies, such as the pre-paid forward sale transaction, contingent forward sale and strategies involving the delivery of restricted securities are unavailable in the public markets and can only be created through private transactions. Due to the greater flexibility of OTC options relative to listed options, this publication assumes each of the referenced strategies is created through private market transactions.

This publication aims to describe strategies that may help investors of concentrated stock positions.



Hedging Strategies

Hedging is used to reduce exposure to risk and help limit investment loss by effecting a transaction (for a cost) which offsets an existing position.

Buying a Put Option

Buying a put option gives the holder or purchaser the right, but not the obligation, to sell the underlying security at a predetermined price (the "put strike price") on or before a specific date (the "expiration date" or "maturity date"). The purchase of a put option provides protection against downward stock price movements when the option is exercised below the put strike price. The investor continues to participate in any stock price appreciation. A put option strategy is generally valuable to an investor who holds stock with a low cost basis or resale limitations, such as holding period requirements or volume restrictions. The transaction may be structured so that the investor, at expiration, settles the put option in cash or delivers the underlying shares. (Please see Appendix F for the definitions of Cash and Physical Settlement).

Example of a Put Option*

- An investor owns 100,000 shares of stock with a current market price of $50.00
- The investor seeks to limit downside price exposure but is unwilling to sell the shares due to the tax consequences
- The investor purchases a two-year, European-style (exercisable only at expiration) put option with a strike price of $45.00 (90% of the current stock price) at a net cost of $3.75 per share

FIGURE 1. PUT OPTION DIAGRAM

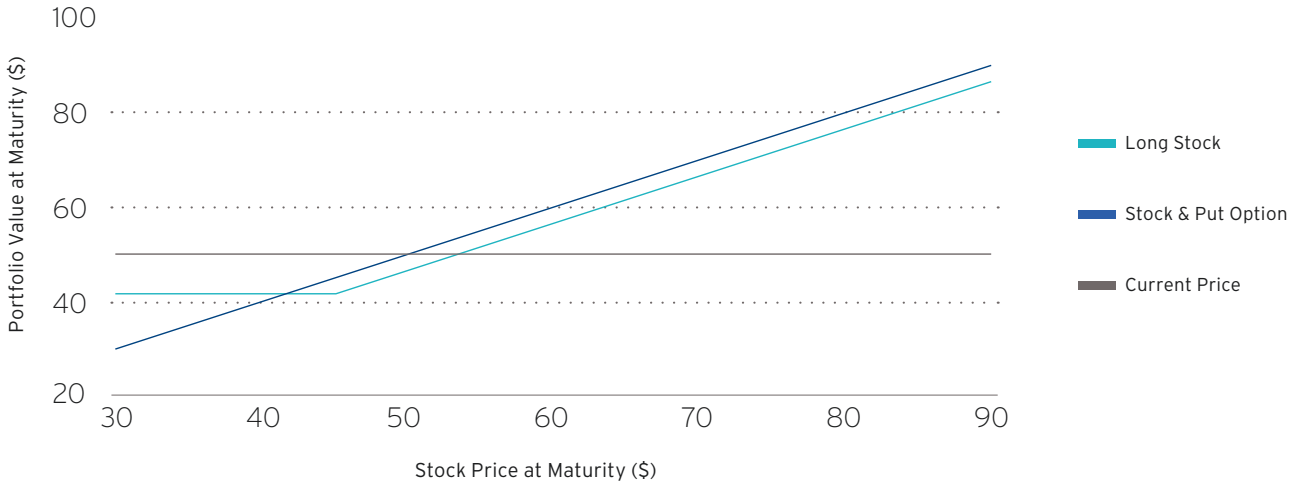


Diagram includes the payment of option premium.

* This example and related diagram is for illustrative purposes only and is not indicative of any investment. Please note that these illustrations do not reflect the impact of any transaction costs or fees, tax implications and related charges which if they had been included may have a significant effect on expected returns and should be considered before engaging in any investment strategy.

Please see the hyperlinks to the Characteristics and Risks of Standardized Options disclosure document (ODD) after the appendices.

Settlement of Put Option at Expiration*

Stock Price at Expiration	Cash Settlement	Physical Settlement
$40	• Investor receives $5 per share ($45 put strike – $40 stock price) • Investor retains 100,000 shares	• Investor delivers (sells) 100,000 shares • Investor receives $45 per share
$50	• Option expires worthless • No payments • Investor retains 100,000 shares	• Option expires worthless • No payments • Investor retains 100,000 shares

Advantages

- Stock price protection below the put strike price
- Participation in stock price appreciation
- Maintain benefits of stock ownership, including voting rights and dividends
- Cash settlement may defer a sale of the underlying shares

Considerations

- Out-of-pocket premium to pay for the put option
- Investor can lose 100% of premium
- Exposure to stock price movements between the market price and put strike price
- Investor may incur a cost to terminate the transaction prior to maturity
- Physical settlement may not be available for options on restricted securities or puts purchased by company insiders
- Cash settlement may raise Section 16(b) issues for company insiders (please see Appendix D for a description of Section 16)
- Holding period requirements or additional restrictions may apply if the shares are "restricted" or "control" stock (please see Appendix B)
- Tax and legal considerations (please see the Appendices)

* This example and related diagram is for illustrative purposes only and is not indicative of any investment. Please note that these illustrations do not reflect the impact of any transaction costs or fees, tax implications and related charges which if they had been included may have a significant effect on expected returns and should be considered before engaging in any investment strategy.

Please see the hyperlinks to the Characteristics and Risks of Standardized Options disclosure document (ODD) after the appendices.

Sale of a Call Option

A call option gives the purchaser or buyer the right, but not the obligation, to buy the underlying security at a predetermined price (the "call strike price") on or before a specific date (the "expiration date" or "maturity date"). The seller of a call option receives an option premium from the buyer for providing the buyer with the right to buy the underlying stock at the call strike price. By selling a call option and receiving the premium, an investor can increase the yield on an equity position and receive limited downside protection. The investor is, in effect, being compensated today for the decision to sell the stock at a predetermined price in the future. Cash settlement of the call option may defer a sale of the underlying stock. (Please see Appendix F for the definitions of Cash and Physical Settlement).

Example of a Call Option*

- An investor owns 100,000 shares of stock with a current market price of $50.00
- The investor wants to generate additional income and is willing to sell the shares if the stock reaches a specific price
- The investor sells a two-year, European-style (exercisable only at expiration) call option with a strike price of $65.00 (130% of the current stock price) and receives $3.75 per share in option premium

FIGURE 2. SALE OF A CALL OPTION DIAGRAM

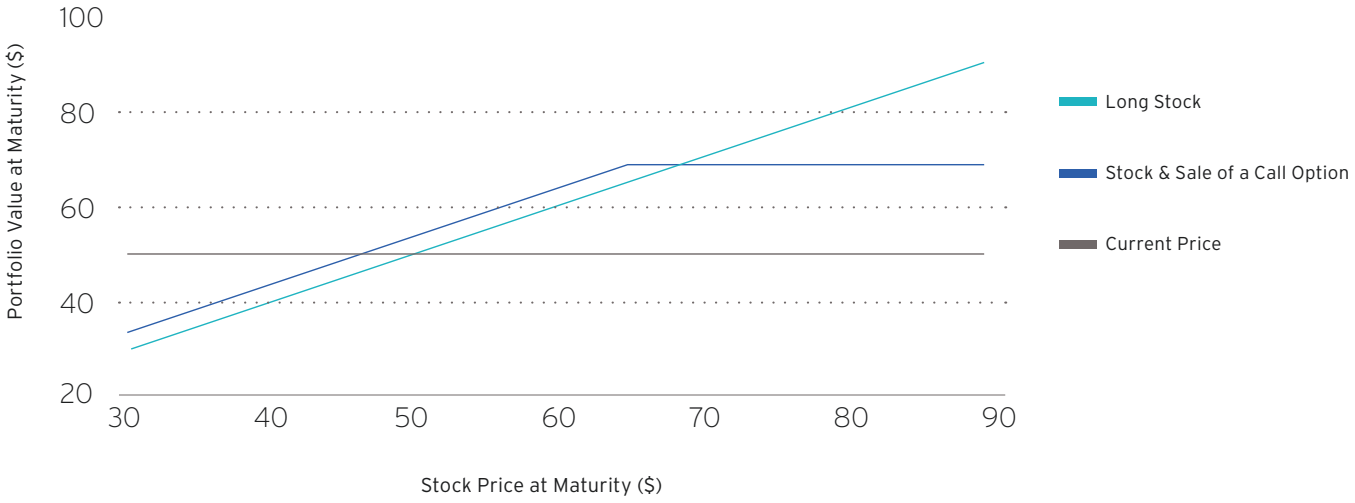


Diagram includes the payment of option premium.

* This example and related diagram is for illustrative purposes only and is not indicative of any investment. Please note that these illustrations do not reflect the impact of any transaction costs or fees, tax implications and related charges which if they had been included may have a significant effect on expected returns and should be considered before engaging in any investment strategy.

Please see the hyperlinks to the Characteristics and Risks of Standardized Options disclosure document (ODD) after the appendices.

Settlement of Call Option at Expiration*

Stock Price at Expiration	Cash Settlement	Physical Settlement
$50	• Option expires worthless • No payments • Investor retains 100,000 shares	• Option expires worthless • No payments • Investor retains 100,000 shares
$70	• Investor pays $5 per share ($70 stock price – $65 call price) • Investor retains 100,000 shares	• Investor delivers (sells) 100,000 shares • Investor receives $65 per share

Advantages

- Investor receives up-front premium
- Maintain benefits of stock ownership, including voting rights and dividends
- Cash settlement may defer a sale of the underlying shares

Considerations

- Limited downside protection
- No participation in stock price appreciation above call strike price
- Investor may incur a cost to terminate the transaction prior to maturity
- Physical settlement may not be available for options on restricted securities or calls sold by company insiders
- Cash settlement may raise Section 16(b) issues for company insiders (please see Appendix D for a description of Section 16)
- Collateral may be required for margin and credit purposes
- Holding period requirements or additional restrictions may apply if the shares are "restricted" or "control" stock (please see Appendix B)
- Tax and legal considerations (please see the Appendices)

* This example and related diagram is for illustrative purposes only and is not indicative of any investment. Please note that these illustrations do not reflect the impact of any transaction costs or fees, tax implications and related charges which if they had been included may have a significant effect on expected returns and should be considered before engaging in any investment strategy.

Please see the hyperlinks to the Characteristics and Risks of Standardized Options disclosure document (ODD) after the appendices.

Equity Collar

A collar strategy can protect the value of an equity position while still allowing for additional participation in potential upside.

A collar is created by purchasing a put option with a strike price at or below the current stock price and selling a call option with a strike price above the current stock price (while simultaneously holding shares of the underlying stock). The value of the equity position is protected below the strike price of the put option. By establishing a collar, a minimum and maximum value is created around an investor's equity position until the maturity of the options. A collar can be structured so that the premium received from the sale of the call option completely offsets the purchase price of the put option. This type of collar is referred to as a "zero premium collar." The transaction may also be structured so that the investor, at expiration, may settle the put or call option in cash or by delivering the underlying shares (please see Appendix F for the definitions of Cash and Physical Settlement).

Example of Equity Collar*

- An investor owns 100,000 shares of stock with a current market price of $50.00
- The investor seeks to limit downside price exposure without paying any net option premium
- The investor purchases a two-year, European-style (exercisable only at expiration) put option with a strike price of $45.00 (90% of the current stock price) and sells a two-year, European-style call option with a strike price of $65.00 (130% of the current stock price)
- The premium received from the sale of the call option completely offsets the purchase price of the put option

FIGURE 3. COLLAR DIAGRAM

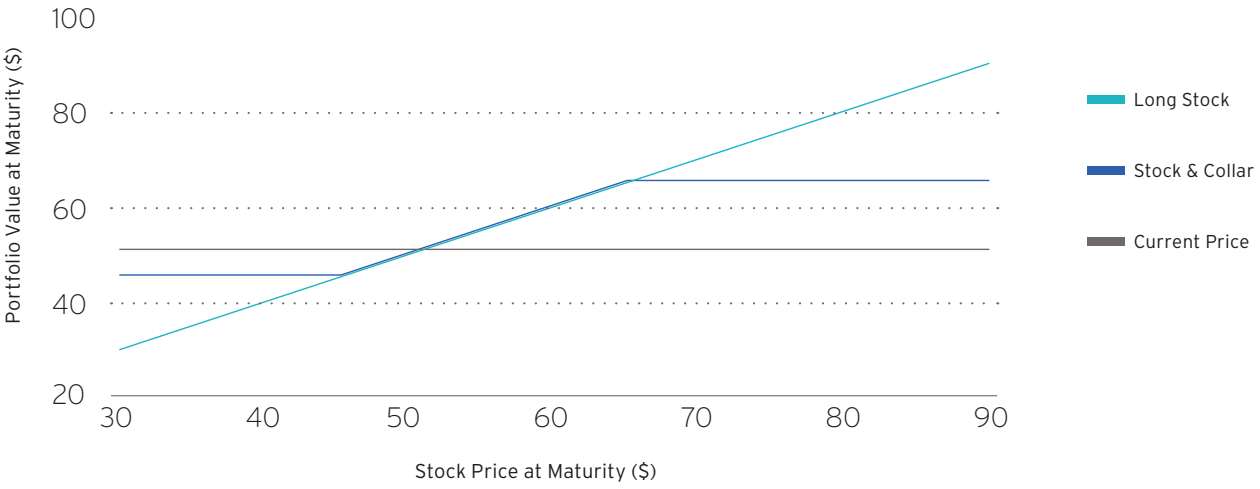


Diagram includes the payment of option premium.

* This example and related diagram is for illustrative purposes only and is not indicative of any investment. Please note that these illustrations do not reflect the impact of any transaction costs or fees, tax implications and related charges which if they had been included may have a significant effect on expected returns and should be considered before engaging in any investment strategy.

Please see the hyperlinks to the Characteristics and Risks of Standardized Options disclosure document (ODD) after the appendices.

Settlement of Collar at Expiration*

Stock Price at Expiration	Cash Settlement	Physical Settlement
$40	• Investor receives $5 per share ($45 put strike – $40 stock price) • Investor retains 100,000 shares	• Investor delivers (sells) 100,000 shares • Investor receives $45 per share
$50	• Options expire worthless • No payments • Investor retains 100,000 shares	• Options expire worthless • No payments • Investor retains 100,000 shares
$70	• Investor pays $5 per share • ($70 stock price – $65 call price) • Investor retains 100,000 shares	• Investor delivers (sells) 100,000 shares • Investor receives $65 per share

Advantages

- Additional upside price participation in the stock up to the call strike price
- Stock price protection below the put strike price
- Reduced or no initial out-of-pocket premium
- Maintain benefits of stock ownership, including voting rights and dividends
- Cash settlement may defer a sale of the underlying shares

Considerations

- Exposure to stock price movements between the market price and put strike price
- No participation in stock price appreciation above call strike price
- Investor may incur a cost to terminate the transaction prior to maturity
- Physical settlement may not be available for options on restricted securities or collars with company insiders. Cash Settlement may raise Section 16(b) issues for company insiders (Please see below "Special considerations for company insiders")
- Collateral may be required for margin and credit purposes
- Tax and legal considerations (Please see the Appendices)

Special Considerations for Company Insiders

Collar transactions may raise issues for company insiders under Section 16(b) of the Securities Exchange Act of 1934 (please see Appendix D for a description of Section 16). Generally, collar transactions can be settled at expiration by delivering freely tradable stock (physical settlement) or electing cash settlement. Since company insiders own control securities, subject to Rule 144 under the Securities Act of 1933, collar transactions should be cash-settled. Cash settlement, however, can create unfavorable Section 16(b) implications if the company insider sells company stock within six months of the expiration or termination of a collar.

* This example and related diagram is for illustrative purposes only and is not indicative of any investment. Please note that these illustrations do not reflect the impact of any transaction costs or fees, tax implications and related charges which if they had been included may have a significant effect on expected returns and should be considered before engaging in any investment strategy.

Please see the hyperlinks to the Characteristics and Risks of Standardized Options disclosure document (ODD) after the appendices.

Hedging and Liquidity Strategies

Margin Loan & Pre-paid Forward Sale Transaction

Hedging strategies can be combined with margin loans to provide investors with liquidity for securities investment or personal use. Loans combined with hedging strategies (put option or a collar) generally have higher loan values than standard margin loans due to reduced credit and market risk. Margin loans are subject to either Federal Reserve Board Regulation T or Regulation U and must be classified as either purpose loans or non-purpose loans. The proceeds of purpose loans can be reinvested into securities, whereas proceeds of non-purpose loans cannot be reinvested into securities. Under Regulation T or Regulation U, a lender may only lend up to 50% of the market value of an equity position for purpose loans. The pre-paid forward sale transaction provides a more flexible alternative.

Pre-paid Forward Sale Transaction

A pre-paid forward sale transaction allows investors to hedge and generate liquidity from an equity position while deferring taxes until the expiration of the contract.

Similar to an equity collar, a pre-paid forward sale transaction provides downside stock price protection and limited upside participation. However, as compared to a collar-plus-loan, a pre-paid forward sale transaction can provide investors with flexibility in the reinvestment of proceeds.

In a pre-paid forward sale transaction, an investor enters into a forward sale contract with a minimum (downside protection price "DPP") and a maximum (capped upside participation price "CUPP") sale price at expiration.

After execution, the investor receives a pre-payment of the minimum sale price. The pre-payment ("initial proceeds") is discounted to reflect the present value of the future minimum sale price and adjusted based on where the downside protection price and capped upside participation price are set. At expiration, if the share price is below the downside protection price, the investor will deliver 100% of the shares underlying the pre-paid forward sale transaction. If the share price is above the downside protection price, the investor will keep some of the upside by retaining a portion of the shares underlying the pre-paid forward sale transaction. Alternatively, it may be possible to cash settle the pre-paid forward sale transaction.

Example of Pre-paid Forward Sale Transaction*

- An investor owns 100,000 shares of stock with a current market price of $50.00
- The investor seeks to limit downside price exposure and generate liquidity for reinvestment without selling stock
- The investor enters into a two-year pre-paid forward sale transaction. The transaction has a downside protection price ("DPP") of $45.00 (90.00% of the current price) and a capped upside participation price ("CUPP") of $65.00 (130.00% of the current price). After execution, the investor receives $40.05 per share or 80.10% of current market value
- The investor has flexibility in reinvesting the proceeds
- At expiration, the investor will deliver all 100,000 shares if the stock price at maturity is less than the DPP. If the stock price at maturity is equal to or greater than the DPP but less than the CUPP, the investor will deliver shares with a value (based on the stock price at maturity) equal to 100,000 times the DPP of $45 divided by the current stock price. If the stock price at maturity is greater than the CUPP, the investor will deliver the shares with a value (based on the stock price at maturity) equal to the sum of the DPP of $45.00 plus any excess of the stock price at maturity over the CUPP of $65.00, all divided by the current stock price

* This example and related diagram is for illustrative purposes only and is not indicative of any investment. Please note that these illustrations do not reflect the impact of any transaction costs or fees, tax implications and related charges which if they had been included may have a significant effect on expected returns and should be considered before engaging in any investment strategy.

Please see the hyperlinks to the Characteristics and Risks of Standardized Options disclosure document (ODD) after the appendices.

FIGURE 4. PRE-PAID FORWARD SALE DIAGRAM

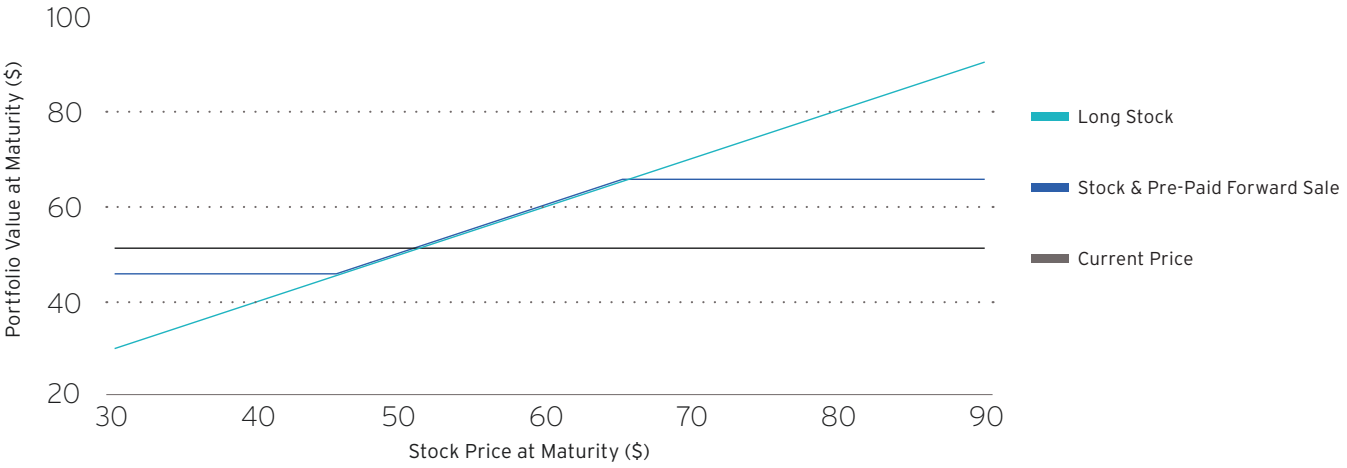


Diagram includes the payment of option premium.

Settlement of Pre-paid Forward Sale at Expiration*

Stock Price at Expiration	Cash Settlement	Physical Settlement
$40	• Investor pays value of shares it would otherwise deliver of $4 million (100,000 shares times $40 current stock price)	• Investor delivers 100,000 shares worth $40 per share • Investor does not retain any shares
$50	• Investor pays value of shares it would otherwise deliver of $4.5 million (90,000 shares times $50 current stock price)	• Investor delivers 90,000 shares ($45 DPP/ $50 current stock price) • Investor retains 10,000 shares
$70	• Investor pays value of shares it would otherwise deliver of $5 million (71,429 shares times $70 current stock price)	• Investor delivers 71,429 shares ([$45 DPP + $70 current stock price – $65 CUPP]/ $70 current stock price) • Investor retains 28,571 shares

Advantages

- Additional upside price participation in the stock up to the capped upside participation price
- Stock price protection below the downside protection price
- Relative to a purpose margin loan, investor monetizes a greater percentage of an equity holding
- All proceeds can be reinvested into marketable securities
- Maintain benefits of stock ownership, including voting rights and dividends
- Cash settlement may defer a sale of the underlying shares. (Investor must be eligible for cash settlement, please see Appendix E)

Considerations

- Exposure to stock price movements between the market price and the downside protection price
- No participation in stock price appreciation above the capped upside participation price
- Investor may incur a cost to terminate the transaction prior to maturity
- Investor must pledge all of the underlying shares as collateral
- •Transactions by company insiders require compliance with Rule 144 under the Securities Act
- Cash settlement may raise Section 16(b) issues for company insiders (please see Appendix D for a description of Section 16)
- Tax and legal considerations (please see the Appendices)

* This example and related diagram is for illustrative purposes only and is not indicative of any investment. Please note that these illustrations do not reflect the impact of any transaction costs or fees, tax implications and related charges which if they had been included may have a significant effect on expected returns and should be considered before engaging in any investment strategy.

Please see the hyperlinks to the Characteristics and Risks of Standardized Options disclosure document (ODD) after the appendices.

Contingent Forward Sale

The contingent forward sale was developed to allow an investor with concentrated stock positions the opportunity to lock in the stock price over time at a premium to the investor's target price. In a contingent forward sale, an investor enters into a contract to sell for future settlement a pre-determined number of shares each trading day over a defined period of time. The investor will agree to sell shares, each trading day, if the closing stock price is greater than the pre-determined stock price (referred to as the "contingent price"). If the closing stock price is equal to or less than the contingent price, no shares will be sold. The sale price for the shares will be at a pre-determined premium to the contingent price (referred to as the "forward sale price"). On the expiration date of the contract, the investor will deliver the shares and receive the sale proceeds. Periodic settlement may also be available during the life of the contract.

Example of Contingent Forward Sale*

- The investor wants to lock in the selling price for 1,000 shares each trading day that the stock closes above the current stock price of $40.00 per share (contingent price is 100% of current stock price)
- An investor enters into a contingent forward sale contract to sell 1,000 shares each trading day over the next 250 trading days or one year (250,000 share total contract size)
- If the stock price closes above the trigger price, a forward sale will occur for 1,000 shares and the investor will receive the forward sale price of $48.00 per share (120% of the current stock price) on the agreed upon date
- If the closing stock price on any trading day is equal to or less than $40.00 per share trigger price, no forward sale occurs and 1,000 shares will be retained by the investor
- Either periodically or at expiration of the contract, the investor will deliver the shares that became subject to the forward contract and receive the sale proceeds for those shares

Advantages

- Investor has the opportunity to sell stock at a premium to the target sale price
- Maintain benefits of stock ownership, including voting rights and dividends

Considerations

- Maximum sale price to investor is the forward sale price
- No shares are sold if the stock closes below the contingent price
- Investor may incur a cost to terminate the transaction prior to maturity
- Tax and Legal considerations (Please see the Appendices)

* This example and related diagram is for illustrative purposes only and is not indicative of any investment. Please note that these illustrations do not reflect the impact of any transaction costs or fees, tax implications and related charges which if they had been included may have a significant effect on expected returns and should be considered before engaging in any investment strategy.

Please see the hyperlinks to the Characteristics and Risks of Standardized Options disclosure document (ODD) after the appendices.

Employee Stock Option Considerations & Tax Considerations

Many companies grant employee stock options as a means to compensate and motivate key employees. Employee stock options give the holder the right to buy the company stock at a specified price after a specified vesting period. The two main types of employee stock options are: (1) incentive stock options ("ISOs") and (2) non-qualified stock options ("NQSOs"). While hedging strategies can limit an investor's downward price exposure in the underlying stock, there are important considerations to take into account, such as margin requirements, the economic exposure of uncovered option sales and tax considerations.

Uncovered Call Writing

Employee stock options are generally not transferable and do not have margin value. Therefore, investors hedging employee stock options by selling equity options, such as call options, are required to post other acceptable collateral to meet the margin requirements. The investor's exposure will increase as the stock price appreciates. Additionally, if the investor sells call options and terminates employment, the investor may lose the employee stock options. This risk can be reduced if the employee owns vested stock options that are exercisable without restrictions or holds the underlying stock through a previous employee stock option exercise.

Note that SEC rules will require a company to disclose in its proxy statement whether the company permits its employees or directors to purchase financial instruments (such as prepaid forward sales, equity swaps and collars) that serve to hedge against a decrease in the market value of the company's equity securities granted to or otherwise held by or for them. As a result of these hedging disclosure requirements, many companies have adopted or are adopting anti-hedging policies. Accordingly, investors should confirm that their employer has not adopted an anti-hedging policy and that any hedging strategies they are considering comply with the terms of their employer's hedging policies.

Tax Considerations

A holder of an NQSO is subject to tax at ordinary rates, at the time of option exercise, on the difference between the fair market value of the stock and the exercise price of the option. The holder's tax basis in the stock is equal to the fair market value of the stock on the exercise date.

The U.S. Internal Revenue Service has not yet ruled on the tax treatment of employees hedging their NQSOs. Generally, losses for qualified hedging transactions are treated as ordinary losses that should be available to offset income from the exercise of NQSOs. However, capital losses generated from transactions that do not qualify as hedging transactions, such as speculative call option sales or collars hedging capital gain stock, may not offset the recognition of ordinary income from the exercise of the NQSO.

A holder of ISOs does not incur a taxable event at the time that an ISO is exercised. However, the difference between the fair market value of the stock and the exercise price is treated as an alternative minimum tax ("AMT") adjustment in the year of exercise. The holder normally will be taxed at capital gains rates when the stock is sold based upon the difference between the selling price of the stock and the ISO exercise price, as long as the sale of the stock does not constitute a "disqualifying disposition." A disqualifying disposition occurs if the ISO stock is disposed of before the later of the expiration of two years from the date the ISO was granted or one year from the date the ISO was exercised (the "ISO holding period").

If the underlying stock is not hedged at the time of exercise or at any time during the one-year period following the exercise date, the investor's holding period in the stock for capital gains purposes will begin on the exercise date, and any sale of the stock more than one year after the exercise date will result in long-term capital gain or loss. In general, it is unclear whether entering into a hedge of an ISO or ISO stock should terminate or otherwise adversely affect the ISO holding period and, therefore, investors should consult their own tax advisors before hedging an ISO or ISO stock. The major tax considerations regarding hedges of NQSOs or ISOs are:

- straddle holding period and loss deferral rules
- short sale holding period rules
- the constructive sale rules, and
- potential mismatching of ordinary income from the exercise of an NQSO or ISO (if there has been a "disqualifying disposition" of the ISO) and a capital loss from the hedging transaction

Appendices

Appendix A: U.S. Tax Considerations

This section provides a general overview of the U.S. tax considerations surrounding equity derivative transactions in publicly traded stock such as those described in this publication as relevant to individual investors who are U.S. citizens, permanent residents or otherwise treated as U.S. tax persons. This discussion only addresses investors who hold the stock as a capital asset and does not address persons who may be treated as engaged in trade or business in carrying out such transactions. This publication does not represent tax or accounting advice. The U.S. tax law is complex and each of the topics below involves substantial complexities and uncertainties that may not be addressed in this publication. This publication also discusses the tax rules as of the date of this publication and does not take into account any possible changes in the law which, if adopted, could affect the utility of the strategies described. Please consult with your tax and accounting advisors in considering any equity derivative transaction.

Tax Disclosures

Notwithstanding any other provision in this publication, you and Citigroup hereby agree that you (and each employee, representative or other agent of the investor) may disclose to any and all persons, without limitation of any kind, the U.S. tax treatment and U.S. tax structure of the transaction and all materials of any kind (including opinions or other tax analyses) that are provided to you relating to such U.S. tax treatment and U.S. tax structure, other than any information for which nondisclosure is reasonably necessary in order to comply with applicable securities laws.

Citigroup, its affiliates, and its employees are not in the business of providing tax or legal advice to any taxpayer outside of Citigroup and its affiliates. These materials and any tax-related statements are not intended or written to be used, and cannot be used or relied upon, by any such taxpayer for the purpose of avoiding tax penalties. Tax-related statements, if any, may have been written in connection with the "promotion or marketing" of the transaction(s) or matters addressed by these materials, to the extent allowed by applicable law. You should seek advice based on your particular circumstances from an independent tax advisor.

Certain Tax Considerations Related to the Purchase of Put Option

Constructive sale

A put option should not result in a constructive sale of the underlying stock, provided that the downside exposure or upside potential retained reflects a significant exposure to the underlying stock relative to the term of the option. A put option that is significantly deep in-the-money may be treated as a constructive sale of the underlying position.

Dividends

Qualified dividends received by individual shareholders are generally eligible for reduced rates of taxation. Dividends are eligible for the reduced rate only if the underlying stock is un-hedged for more than 60 days around the ex-dividend date. A purchased put option is considered a hedge for that purpose, so dividends on the underlying stock will be taxable at ordinary income tax rates.

Straddle rules

Generally, the straddle rules will apply to an equity position if the investor holds an offsetting position that substantially diminishes the risk of loss. Under the straddle rules, generally any loss (both on the put option and on any portion of the underlying stock) is deferred to the extent of unrealized gain.

However, the investor can make an identified straddle election by identifying which shares are part of the straddle with the purchased put. Loss on an identified straddle is not deferred until all unrealized gain is recognized under the straddle rules (which potentially may not occur until all the stock is disposed of) but instead is added to the basis of the offsetting straddle position based on the relative amounts of unrealized gains. As a result, the loss on an identified straddle would reduce any future taxable gain (or increase loss) on the offsetting straddle position. An identified straddle must be clearly identified on the investor's records by the close of day on which the put is purchased. Investors are urged to consult their tax advisors regarding the straddle rules generally and the identified straddle election in particular and should consider making the identified straddle election with respect to the put option.

In addition, under the straddle rules, interest and carry costs (to the extent otherwise generally deductible) must be capitalized into the basis of the property to which they relate and an investor's holding period in the underlying stock is eliminated if the underlying stock has not been held for more than one year when the put option is purchased. For individuals, losses that exceed $2 million in any single tax year or $4 million in any combination of tax years and that are from the sale of property that was ever part of a straddle transaction are considered a "reportable transaction" and should be separately disclosed on IRS Form 8886 — Reportable Transaction Disclosure Statement.

Option Lapse

The loss on the lapse of the put generally will be equal to the put premium and will be treated as a short-term capital loss unless the investor held the underlying stock for more than one year before the purchase of the put, in which case the loss on the put will be long-term capital loss. This loss is either subject to the general straddle loss deferral rule or added to the basis of the underlying shares hedged if the investor has identified the put option and the underlying shares as an identified straddle. If the investor is selling their entire position, the gain and loss should net, but if this is a hedge of only a portion of their shares, the loss could be deferred until all shares are disposed of, unless the investor has made the identified straddle election, in which case the loss would be added to the basis of the identified hedged shares. Investors are therefore urged to consult their tax advisors regarding the identified straddle election and should consider making the identified straddle election with respect to the put option.

Cash settlement

The gain or loss on the cash settlement will equal the difference between the premium paid and the amount received to cash- settle the put transaction. If the investor does not simultaneously sell all of the underlying stock upon the termination of the put transaction, all or a portion of any loss from the put transaction will be deferred under the straddle rules until the stock is sold and all gain is realized unless an identified straddle election has been made as discussed above. Any gain from cash settlement of a put transaction will be treated as short-term capital gain and taxed currently. Any loss from

cash settlement of a put will be characterized as long-term capital loss, if the underlying stock was held for more than one year prior to the purchase of the put option.

Physical settlement

If the investor transfers the stock to close out the put, the investor will recognize a short or long-term capital gain or loss, depending upon the holding period of the stock at the time that the investor purchased the put. The amount of gain will depend on the stock price at expiration of the put. A loss could be recognized upon physical settlement of the put if the sum of the tax basis of the stock and the put premium paid exceed the strike price. Special rules apply to physical settlement of loss straddle positions. Under these rules, if closing out the put for cash would result in a loss, then the investor is treated as terminating the put for its fair market value immediately before settlement and then selling the stock delivered for its fair market value. The loss arising from the deemed cash settlement of the put is either subject to the general straddle loss deferral rule or is added to the basis of the underlying shares hedged if the investor has identified the put and the shares as an identified straddle. If the investor is delivering their entire position the gain and loss should net, but if this is a hedge of only a portion of their position, the deemed loss could be deferred until all shares are disposed of unless the investor has made the identified straddle election, in which case the loss would be added to the basis of the identified underlying shares, thus reducing the gain (or increasing the loss) recognized on the shares.

The deemed termination of the put only applies if it would otherwise be terminated at a loss. Thus, if there would be a gain upon terminating the put, such as where the stock price is less than the put strike, this deemed sale rule would not apply and the gain or loss would then simply be the difference between the put strike amount received and (1) the basis of the shares delivered plus (2) the put premium.

Certain Tax Considerations Related to the Sale of a Call Option

Constructive sale

A written call option should not result in a constructive sale of the underlying stock provided that the downside exposure or upside potential retained reflects a significant exposure to the underlying stock relative to the term of the option. A call option that is significantly deep in-the-money may be treated as a constructive sale of the underlying position.

Straddle rules

Generally, the straddle rules will apply to an investor who owns the underlying stock and sells a call option on that stock unless the transaction meets the exception for qualified covered calls discussed below. Under the straddle rules: (1) any gain from cash settlement or lapse of the call option will be treated as short-term capital gain and taxed currently, (2) any loss from cash settlement or lapse of the call option will be treated as short or long-term capital loss, depending upon the holding period of the underlying stock, and (3) all or a portion of any loss from cash settlement or lapse of an option would be deferred to the extent of any unrealized gain in all of the stock unless the investor has made an identified straddle election. If the investor identifies which shares are part of the identified straddle with the sold call, loss on the straddle is not deferred until all unrealized gain is recognized under the straddle rules but instead is added to the basis of the offsetting straddle position based on the relative amounts of unrealized gains. As a result, the loss on an identified straddle would reduce any future taxable gain (or increase loss) on the offsetting straddle position. An identified straddle must be clearly identified on the investor's records by the close of day on which the call is sold. Investors are urged to consult their tax advisors regarding the straddle rules generally and the identified straddle election in particular and should consider making the identified straddle election with respect to the call option.

In addition, under the straddle rules, interest and carry costs (to the extent otherwise generally deductible) must be capitalized into the basis of the property to which they relate and an investor's holding period in the underlying stock is eliminated if the underlying stock has not been held for more than one year when the call option is sold. For individuals, losses that exceed $2 million and that are from the sale of property that was ever part of a straddle transaction are considered a "reportable transaction" and should be separately disclosed on IRS Form 8886 – Reportable Transaction Disclosure Statement.

Selling covered calls will allow for exemption from the straddle rules if calls are considered Qualified Covered Calls ("QCCs"). QCCs must be written on a single stock and have an expiration greater than 30 days and less than 33 months. The option must not be deep-in-the-money, which means that it must have a strike price greater than or equal to the "lowest qualified benchmark" that will depend on the trading price of the stock and term of the option. Options with a maturity of greater than one year have special rules in determining the "adjusted applicable stock price," with the result that an "out of the money" option may not meet the QCC exception and selling such an option may result in the call option and the underlying stock being subject to the straddle rules discussed above. In addition, even if the call option is a QCC and the straddle rules do not apply, if the strike price is less than the applicable stock price, the investor's holding period in the underlying stock will be suspended while the QCC remains outstanding and any loss on the QCC will be long-term capital loss if the underlying stock was held for more than one year prior to the sale of the call. Investors are urged to consult their tax advisors regarding how the qualified covered call rules apply to their respective transaction, particularly for calls with an expiration of more than one year.

Dividends

Qualified dividends received by individual shareholders are generally eligible for reduced rates of taxation. Dividends are eligible for the reduced rate only if the underlying stock is un-hedged for more than 60 days around the ex-dividend date. A sold call option generally is considered a hedge for that purpose, except selling covered calls will allow for reduced tax rate on dividends but only if the calls are "QCCs" and are not in-the-money.

Investors considering selling call options are urged to consult with their tax advisors regarding the treatment of dividends on the underlying stock and the application of the QCC rules.

Option lapse

Regardless of whether or not the straddle rules apply, any gain the investor will recognize on a lapse of the written call will generally equal the call premium received and will be currently taxable as a short-term capital gain.

Cash settlement

If the call option is cash-settled at expiration, the investor will generally recognize a short-term gain or loss equal to the settlement payment minus the call premium. If the straddle rules do not apply, any gain or loss generally would be treated as short-term gain or loss. However, loss from cash settlement of a QCC with a strike price less than the applicable stock price will be long-term capital loss if the underlying stock was held for more than one year prior to the sale of the QCC. As discussed above, if the straddle rules apply, the loss will either be deferred or capitalized into the basis of the underlying shares, depending on whether the

investor elected to treat the call option and the underlying shares as an identified straddle. If the straddle rules apply, loss from cash settlement of call options will be long-term capital loss, if the underlying stock was held for more than one year prior to the sale of the call.

Physical settlement

Any gain or loss recognized by the investor upon the transfer of the stock to close out the call transaction will be treated as short or long-term capital gain or loss, depending upon the holding period of the underlying stock at the time that the investor sold the call option.

The amount and the treatment of the gain or loss may depend on whether the transaction is subject to the straddle rules or excepted under the rules applicable to QCCs discussed above.

Special rules apply to physical settlement of loss straddle positions. Under these rules, if closing out the call option for cash would result in a loss, then the investor is treated as terminating the call option for its fair market value immediately before settlement and then selling the stock delivered for its fair market value. The loss arising from the deemed cash settlement of the call is either subject to the general straddle loss deferral rule or added to basis of the underlying shares if the investor identified the call and the shares as an identified straddle. If the investor is delivering their entire position the gain and loss should net, but if this is a hedge of only a portion of their position, the deemed loss could be deferred until all shares are disposed of unless the investor has made the identified straddle election, in which case the loss would be added to the basis of the identified underlying shares, thus reducing the gain (or increasing the loss) recognized on the shares.

The deemed termination of the call only applies if it would otherwise be terminated at a loss. Thus, if there would be a gain upon terminating the call, such as where the stock price is only slightly above the call strike, this deemed sale rule would not apply and the gain or loss would then simply be the difference between the call strike amount received plus the premium and the basis of the shares delivered.

Certain Tax Considerations Related to Collar Transactions

Constructive sale

A collar transaction should not result in a constructive sale of the underlying stock provided that the retained downside exposure and upside potential reflect a significant exposure to the underlying stock relative to the term of the collar.

Stock loans

Certain hedging transactions of appreciated stock positions similar to collars have been ruled on by the IRS and the strategy has been recognized as not triggering an immediate gain recognition. However, the treatment of variable pre-paid forward sale transactions as not resulting in an immediate sale of the underlying stock generally is conditioned on the investor not lending the underlying shares to the counterparty in connection with the transaction and may otherwise depend on the facts and circumstances of the arrangement as a whole.

Loans

In a collar transaction, monetization may be provided under a loan facility, typically structured as a zero-coupon loan. Under proposed regulations, interest expense incurred with respect to a loan that was entered into in connection with stock hedge by a collar is subject to a special limitation. Generally, the amount of interest expense that is deductible is limited to the income, such as dividends, received from the underlying stock position. Any excess interest expense is required to be capitalized and is added to the investor's tax basis in the underlying stock.

Dividends

Qualified dividends received by individual shareholders are generally eligible for reduced rates of taxation. Dividends are eligible for the reduced rate only if the underlying stock is unhedged for more than 60 days around the ex-dividend date. A collar transaction is considered a hedge for that purpose, so dividends on the underlying stock will be taxable at ordinary income tax rates.

Straddle rules

Generally, the straddle rules will apply to an equity position if the investor holds an offsetting position that substantially diminishes the risk of loss. This discussion assumes that the collar transaction is treated as a single financial contract rather than as a combination of options. Under the straddle rules, generally any loss (both on the collar and on any portion of the underlying stock) is deferred to the extent of unrealized gain on either the stock or the collar. However, the investor can make an identified straddle election by identifying which shares are part of the straddle with the collar. Loss on an identified straddle is not deferred until all unrealized gain is recognized under the straddle rules but instead is added to the basis of the offsetting straddle position based on the relative amounts of unrealized gains. As a result, the loss on an identified straddle would reduce any future taxable gain (or increase loss) on the offsetting straddle position. An identified straddle must be clearly identified on the investor's records by the close of day on which the collar is entered into. Investors are urged to consult their tax advisors regarding the straddle rules generally and the identified straddle election in particular and should consider making the identified straddle election with respect to the call option.

In addition, interest and carry costs (to the extent otherwise generally deductible) must be capitalized into the basis of the property to which they relate and an investor's holding period in the underlying stock is eliminated if the underlying stock has not been held for more than one year when the collar transaction is entered into. For individuals, losses that exceed $2 million in any single tax year or $4 million in any combination of tax years and that are from the sale of property that was ever part of a straddle transaction are considered a "reportable transaction" and should be separately disclosed on IRS Form 8886 — Reportable Transaction Disclosure Statement.

Cash settlement or lapse

The investor will recognize a gain or loss, equal to the difference between the amount paid or received (if any) upon entering into the collar transaction and the amount paid or received to cash settle the collar transaction. If the investor does not simultaneously sell the stock upon the termination of the collar transaction, all or a portion of any loss from the collar transaction may be deferred under the straddle rules until all of the stock is sold and any gain is realized unless an identified straddle election has been made as discussed above. Any gain from cash settlement or lapse of a collar transaction will be treated as short-term capital gain. Any loss from cash settlement or lapse of a collar transaction will be characterized as long-term capital loss, if the underlying stock was held for more than one year prior to the execution of the collar transaction.

Physical settlement

Any gain recognized by the investor upon the transfer of the stock to close out the collar transaction will be treated as short or long-term capital gain, depending upon the holding period of the stock at the time that the investor entered into the collar transaction.

Special rules apply to physical settlement of loss straddle positions. Under these rules, if closing out the collar transaction for cash would result in a loss, then the investor is treated as terminating the collar transaction for its fair market value immediately before settlement and then selling the stock delivered for its fair market value. The loss arising from the deemed cash settlement of the collar transaction is either subject to the general straddle loss deferral rule or added to basis in the underlying shares if the investor identified the collar transaction and the shares as an identified straddle. If the investor is delivering their entire position the gain and loss should net, but if this is a hedge of only a portion of their position, the deemed loss could be deferred until all shares are disposed of unless the investor has made the identified straddle election, in which case the loss would be added to the basis of the underlying shares, thus reducing the gain (or increasing the loss) recognized on the shares.

The deemed termination of the collar transaction only applies if it would otherwise be terminated at a loss. Thus, if there would be a gain upon terminating the collar transaction, such as where the stock price is less than the put strike, this deemed sale rule would not apply and the gain or loss would then simply be the difference between the put strike amount received and the basis of the shares delivered.

Certain Tax Considerations Related to Pre-paid Forward Sale Transactions

Constructive sale

A variable pre-paid forward sale transaction should not result in a constructive sale of the underlying stock provided that the retained downside exposure and upside potential that is a function of the variable share delivery formula reflects a significant exposure to the underlying stock relative to the term of the transaction.

Stock loans

Variable pre-paid forward sales have been ruled on by the IRS and the strategy has been recognized as not triggering an immediate gain recognition.

However, the treatment of variable pre-paid forward sale transactions as not resulting in an immediate sale of the underlying stock generally is conditioned on the investor not lending the underlying shares to the counterparty in connection with the transaction or otherwise allowing the counterparty unrestricted control of such shares.

Additional Tax Considerations Related to Contingent Forward Sales

There is no specific guidance on the tax treatment of contingent forward sale transactions. A contingent forward sale contract may be viewed as a series of options to sell the stock on a forward basis at maturity of the such contract, with a portion of options exercisable on each trading day during the year if the stock closes above the trigger price on such trading day. Generally, option transactions are not taxed until they lapse or are exercised. It is also possible that on each day in which the stock closes above the trigger price, the investor is treated as selling the number of shares underlying the contract for that day. You are urged to consult with your tax advisor regarding tax treatment of contingent forward sales contracts.

Prepayment

The pre-payment ("initial proceeds") in a variable pre-paid forward sale transaction reflects the discounted present value of the future minimum sale price. The discount rate is comparable to the current finance rate, however, because the prepayment is not a loan, no interest expense is recognized for tax purposes. The tax benefit of the implied financing is reflected as reduced sale proceeds recognized upon closing the forward sales transaction. The net effect is similar to the capitalization of interest except there is no ability to offset current dividend income with the implied financing cost.

Dividends

Qualified dividends received by individual shareholders are generally eligible for reduced rates of taxation. Dividends are eligible for the reduced rate only if the underlying stock is un-hedged for more than 60 days around the ex-dividend date. A pre-paid forward sale transaction is considered a hedge for that purpose, so dividends on the underlying stock will be taxable at regular ordinary income tax rates.

Straddle rules

Generally, the straddle rules will apply to an equity position if the investor holds an offsetting position that substantially diminishes the risk of loss.

Under the straddle rules, generally any loss is deferred to the extent of unrealized gain. However, the investor can make an identified straddle election by identifying which shares are part of the straddle with the pre-paid forward sale transaction. Loss on an identified straddle is not deferred until all unrealized gain is recognized under the straddle rules (which potentially may not occur until all the stock is disposed of) but instead is added to the basis of the offsetting straddle position based on the relative amounts of unrealized gains. As a result, the loss on an identified straddle would reduce any future taxable gain (or increase loss) on the offsetting straddle position. An identified straddle must be clearly identified on the investor's records by the close of day on which the pre-paid forward sale is entered into. Investors are urged to consult their tax advisors regarding the straddle rules generally and the identified straddle election in particular and should consider making the identified straddle election with respect to the put option.

In addition, under the straddle rules, interest and carry costs (to the extent otherwise generally deductible) must be capitalized into the basis of the property to which they relate and an investor's existing stock holding period is eliminated if the underlying stock has not been held for more than one year when the pre-paid forward sale transaction is executed. For individuals, losses that exceed $2 million in any single tax year or $4 million in any combination of tax years and that are from the sale of property that was ever part of a straddle transaction are considered a "reportable transaction" and should be separately disclosed on IRS Form 8886 — Reportable Transaction Disclosure Statement.

Cash settlement or lapse

The investor will recognize a gain or loss, equal to the difference between the amount received upon entering into the pre-paid forward sale transaction and the amount paid to cash-settle the pre-paid forward sale transaction. If the investor does not simultaneously sell the stock upon the termination of the pre-paid forward sale transaction, all or a portion of any loss from the pre-paid forward sale transaction will be deferred until there is no longer any unrealized gain in the stock or the stock is sold, unless the investor has made an identified straddle election as discussed above, in which case, the loss will be added to the basis of the underlying shares. Any gain from cash settlement or lapse of a pre-paid forward sale transaction will be treated as short-term capital gain and taxed currently. Any loss from cash settlement or lapse of a pre-paid forward sale transaction will be characterized as long-term capital loss, if the underlying stock was held for more than one year prior to the execution of the pre-paid forward sale transaction.

Physical Settlement

Any gain recognized by the investor upon the transfer of the stock to close out the prepaid forward sale transaction will be treated as short or long-term capital gain, depending upon the holding period of the stock at the time that the investor entered into the pre-paid forward sale transaction. Special rules apply to physical settlement of loss straddle positions. Under these rules, if closing out the pre-paid forward sale transaction for cash would result in a loss, then the investor is treated as terminating the pre-paid forward sale transaction for its fair market value immediately before settlement and then selling the stock delivered for is fair market value. The loss arising from the deemed cash settlement of the pre-paid forward sale transaction is either subject to the general straddle loss deferral rule or added to basis if the underlying shares if the investor identified the pre-paid forward sale transaction as an identified straddle. If the investor is delivering their entire position the gain and loss should net, but if this is a hedge of only a portion of their position, the deemed loss could be deferred until all shares are disposed of unless the investor has made the identified straddle election, in which case the loss would be added to the basis of the underlying shares, thus reducing the gain (or increasing the loss) recognized on the shares.

The deemed termination of the pre-paid forward transaction only applies if it would otherwise be terminated at a loss. Thus, if there would be a gain upon terminating the pre-paid forward sale transaction, such as where the stock price is less than the amount received at inception, this deemed sale rule would not apply and the gain or loss would then simply be the difference between the amount received at inception and the cost basis of the shares delivered.

Appendix B: Rules 144 and 145 under the Securities Act of 1933

The investment transactions or strategies described in this publication are governed by, and subject to, certain laws, rules and regulations. Nothing contained herein should be interpreted as a comprehensive statement of such laws, rules and regulations. Rather, any such information is intended to give investors a broad overview of such laws, rules and regulations. Investors should reference the actual law, rule and regulation for a complete understanding of the law, rule and regulation. Such laws, rules and regulations are subject to change at any time and any changes may not be reflected herein. As always, investors should consult their professional advisors prior to entering into any investment transaction or strategy.

Securities Act of 1933

Unless a specific exemption is available, the Securities Act of 1933 (the "Securities Act") generally requires registration of every offer and sale of securities made in the United States or to U.S. persons. Exemptions to that rule cover certain types of securities being offered (certain governmental, bank and other securities), as well as types of transactions, pursuant to which the securities are sold. Most common "transactional" exemptions include private transactions (initial private placements and certain private re-sales), standard secondary market transactions (ordinary transactions by dealers and brokers) and certain foreign jurisdiction transactions (for example, transactions subject to Regulation S under the Securities Act).

In addition, Rule 144 under the Securities Act provides a significant avenue for parties seeking to resell non-registered securities (so-called "restricted securities") and for affiliates of issuers (often referred to as "control persons") seeking to resell their securities (so-called "control securities"). It is important to note that the "restricted" status of securities relates to the manner of their issuance, whereas the "control" status results from the identity of the party owning the securities, thus the securities can have both "restricted" and "control" characters.

Rule 144 — Restricted Securities

Restricted securities are securities acquired directly or indirectly from the issuer in a transaction or series of transactions not involving a "public offering" (for example, private placements by issuers and private acquisitions from affiliates of issuers, gifts, compensation arrangements and various distributions). Due to the certificated format in which the companies often issue these securities, they are often called "legended" securities.

According to revised rules, effective as of February 15, 2008, restricted securities of companies current in their reporting under the Securities Exchange Act of 1934 (the "Exchange Act") must be held for at least six months (or one year for securities of certain "non-reporting" issuer companies) by persons other than "affiliates" of the issuer before a public sale is permissible. Once the six-month period expires, any sales of such securities are not subject to any limitations, so long as the issuer remains a "reporting" company and current in its Exchange Act filings at the time of the sale if the sale is during the six months following such initial six-month period.

Rule 144 — Control Securities

Rule 144 provides for an exemption for sales of securities held by certain affiliates of the issuer. Control securities, whether purchased in the open market or acquired directly from the issuer, absent another exemption, can only be sold publicly subject to restrictions contained in Rule 144. As indicated in the preceding paragraph, if the control securities are also restricted, they must be held for at least six months (or one year for securities of certain "non-reporting" issuer companies) before a sale subject to restrictions of Rule 144 is permissible.

Rule 144 restrictions applicable to sale of control securities generally relate to (i) the amount of such securities that may be sold within a given period, (ii) the manner in which such sales can be made, (iii) current reporting requirements applicable to the underlying issuer and (iv) the notice requirements applicable to such sales.

Rule 145 — Business Combination Securities

As a result of the amendments to the rules as mentioned above, effective as of February 15, 2008, Rule 145 has been rendered only marginally relevant to re-sales of "restricted" or "control" securities. Following the amendments, affiliates of target companies (who are not also affiliates of the issuer-acquirer), who received securities of the issuer in connection with registered mergers, acquisitions and similar transactions ("Rule 145 transactions"), generally can freely sell the securities received in such transactions. Obviously, provisions of Rule 144 continue to apply to holders of "restricted" and "control" securities of the issuer-acquirer and to any securities acquired by the holders of the target, if such securities were acquired not in a Rule 145 transaction, but in an ordinary private transaction.

Rule 145 is only applicable to transactions involving certain "shell companies." That means that public sales of securities acquired by the security holders of a "shell company" in Rule 145 transactions by affiliates of the target company remain subject to the registration requirements of the Securities Act or, absent another exemption, can only be sold subject to certain Rule 145 restrictions similar to those of Rule 144.

FIGURE 5. SUMMARY TABLE OF RULE 144 FOR EXCHANGE ACT REPORTING COMPANY ISSUERS

	Restricted (Legended) Securities; Seller Is a Non-Affiliate	All Securities; Seller Is an Affiliate
Holding period (calculated from the date of full payment)	Six months	Six months for restricted securities; no holding period for other securities
Current public information	Company must have filed current financial information with the Securities and Exchange Commission ("SEC") during the preceding 12 months (if the sale occurs prior to the holding period reaching 12 months) and be a "reporting company" under the Exchange Act for 90 days	At the time of the sale, company must have filed current financial information with the SEC during the preceding 12 months and be a "reporting company" under the Exchange Act for 90 days
Limitations on amount of securities to be sold	Not applicable	Applicable; generally, the greater of: (i) 1% of the outstanding shares of the class of the securities being sold and (ii) the average weekly trading volume during the four calendar weeks preceding the week during which the sale is being made
Restrictions on manner of sale	Not applicable	Applicable; generally, the methods of sale are limited to (i) certain "unsolicited" broker's transactions, (ii) transactions directly with a "market maker" and (iii) certain "riskless principal" transactions
Filing of Form 144 with SEC	Not applicable	Applicable; the form filing is required if the amount of securities being sold is greater than (i) 5,000 securities or (ii) $50,000 worth of such securities

Appendix C: Disclosure Requirements Under Section 13 of the Exchange Act

The investment transactions or strategies described in this publication are governed by, and subject to, certain laws, rules and regulations. Nothing contained herein should be interpreted as a comprehensive statement of such laws, rules and regulations. Rather, any such information is intended to give investors a broad overview of such laws, rules and regulations. Investors should reference the actual law, rule and regulation for a complete understanding of the law, rule and regulation. Such laws, rules and regulations are subject to change at any time and any changes may not be reflected herein. As always, investors should consult their professional advisors prior to entering into any investment transaction or strategy.

Sections 13(d) and 13(g)

Sections 13(d) and 13(g) of the Exchange Act, and rules relating to those sections, generally require that persons or entities that become "beneficial owners" (including holders of certain option and derivative positions) of 5% or more of a class of any equity security of a publicly reporting company (i) disclose such ownership stake to the SEC and to the issuer, (ii) specify, by selecting a specific filing form, whether such stake is held solely with a "passive investment purpose" or with a "purpose or the effect of changing or influencing the control of the issuer" and (iii) continue to report any changes to their ownership or their intent with respect to the issuer.

Appendix D: Section 16 of the Exchange Act

The investment transactions or strategies described in this publication are governed by, and subject to, certain laws, rules and regulations. Nothing contained herein should be interpreted as a comprehensive statement of such laws, rules and regulation. Rather, any such information is intended to give investors a broad overview of such laws, rules and regulations. Investors should reference the actual law, rule and regulation for a complete understanding of the law, rule and regulations. Such laws, rules and regulations are subject to change at any time and any changes may not be reflected herein. As always, investors should consult their professional advisors prior to entering into any investment transaction or strategy.

Section 16(a) — Reporting Requirements

Section 16(a) of the Exchange Act requires officers, directors and "beneficial owners" of more than 10% ("insiders") of a class of any equity security of a publicly reporting issuer (other than "foreign private issuers") to file certain form reports with the SEC, in a timely fashion, disclosing their equity interest in the issuer (including options and other derivative securities) and any changes in such ownership interest.

Section 16(b) — Short-Swing Profits

Under Section 16(b) of the Exchange Act, if within any six-month period an insider buys and sells, or sells and buys, any equity security of the issuer (or enters into or settles any options and other derivative securities on such equity securities) and realizes any net positive difference between the prices of any such transactions, or earns a premium from the sale of any option that expires or is cancelled within a six-month period, the insider may be subject to "disgorgement" to the issuer of such net positive difference or premium.

Section 16(c) — Short Positions

Section 16(c) generally prohibits insiders from holding "naked" short positions on any equity interest in the issuer (including equivalent option and other derivative positions).

Appendix E: Investor Eligibility Requirements for Over-the-Counter Options Transactions

Accredited investor

An individual must be an accredited investor under the Securities Act to enter into over-the-counter options. An accredited investor (either alone or jointly with his or her spouse) must have a net worth in excess of U.S. $1 million or income over $200,000 ($300,000 if joint) per year for the past two years and has a reasonable expectation of reaching the same income level in the current year. Over-the-counter option transactions are carried out as private placements and are not registered under the Securities Act.

Approved for listed options

Certain investors must be approved to trade listed options.

Eligible contract participant

To enter in a swap or cash settled pre-paid forward sale transaction, an individual must be an eligible contract participant under the Commodity Exchange Act (total assets in excess of $5 million if transaction is for hedging purposes).

Appendix F: Glossary of Terms

Put option

A physically settled put option gives the holder the right to sell the underlying asset at a given price (the "strike price") on or before a specific date (the "expiration date").

Call option

A call option gives the holder the right to buy the underlying asset at a given price (the "strike price") on or before a specific date (the "expiration date").

Strike price

The price at which the underlying security may be bought (call) or sold (put).

Underlying security

The equity, fixed-income, interest rate or commodity asset underlying the option contract.

Expiration date

The last date on which the option may be exercised.

European-style option

Exercisable only on the expiration date.

American-style option

Exercisable on or before the expiration date.

Cash settlement

The settlement of an option contract or other equity derivative contract through the payment of cash in the amount by which the contract is in-the-money as opposed to delivering or receiving the underlying security.

Physical settlement

The settlement of an option contract or other equity derivative contract through the delivery or receipt of the underlying security for payment of the strike price.

Over-the-counter option

A customized option that is privately negotiated between a financial institution and a counterparty. Strike prices, expirations, underlying securities and settlement features are negotiable.

Listed option

An option that is registered on an exchange, such as the CBOE, American and Philadelphia Stock Exchanges. Strike prices, expirations, underlying securities and settlement features are generally fixed.

In-the-Money

A call option is considered "in-the-money" when the call option's strike price is lower than the prevailing market price of the underlying stock, thus allowing its holder to buy the underlying stock at lower than the prevailing market price by exercising the call option. A put option is considered "in-the-money" when the put option's strike price is higher than the prevailing market price of the underlying stock, thus allowing its holder to sell the underlying stock at higher than the prevailing market price by exercising the put option.

Documentation ISDA

Derivatives transactions are principally documented under the International Swaps and Derivatives Association, Inc. ("ISDA") Master Agreement and Schedule.

The documentation associated with most derivative transactions consists of the following:

- ISDA Master Agreement: The ISDA Master Agreement is an industry standard document that governs all derivatives transactions. The ISDA Master Agreement addresses the following:
  - Netting benefits: exposure, payments, multiple transaction termination
  - Events of Default and Termination Events: termination mechanics
  - Bilateral provisions: industry standard document
  - Evergreen document: multiple transactions (each evidenced by a Confirmation) may be entered into under a single ISDA Master Agreement
- Schedule to the ISDA Master Agreement: The Schedule is utilized to customize the standard documentation in order to address the individual client. The Schedule will include the specifics on Early Termination Events and Close-out mechanisms and credit support provisions
- Credit Support Annex (CSA): Paragraph 13 of the CSA describes the collateral arrangement between counterparties to derivatives transactions. It is a supplement to and forms part of the ISDA Master Agreement and defines terms under which collateral is posted between derivative counterparties
- Confirmation: Each transaction entered under the ISDA Master Agreement is evidenced by a Confirmation, which presents all the details of such transaction
- Combination of Master Agreement, Schedule, CSA and Confirmation form a single agreement. Negotiation and execution of ISDA Master Agreements will be performed by Citi's Derivatives Documentation Unit
- ISDA Master Agreement — Opinion: Clients who elect to transact under the ISDA Master Agreement by means of entity (e.g., a Personal Investment Company) will be required to provide an opinion of counsel in form satisfactory to Citibank, N.A. Such opinion must be of even date with the ISDA Master Agreement
- Clients will be required to demonstrate their ECP status before they enter into the ISDA Master Agreement or transact thereunder. ECP status generally requires:
  - For clients that elect to transact under the ISDA Master Agreement by means of an entity (i.e., corporation, partnership, proprietorship, organization, trust, or other entity) that such entity have total assets exceeding $10,000,000; or for hedging transactions only, that such entity has a net worth exceeding $1,000,000
  - For clients that elect to transact under the ISDA Master Agreement as natural persons: that the total amount of such client's investment portfolio exceeds $10,000,000; or for hedging transactions only, that such amount exceeds $5,000,000. For such purposes, a client's investment portfolio excludes real estate not held for investment purposes and other assets which do not reflect experience in financial markets, such as jewelry, art work, antiques, aircrafts, yachts and other collectibles

Beginning March 1, 2017, trades executed by "Financial End Users" will be subject to rules recently issued by the "Prudential Regulators" that govern variation margin posted to and collected from clients. Among other things, these rules will (i) require, based on the mark-to-market value of the clients' trades, collecting variation margin from clients and posting variation margin to clients, (ii) limit the types of assets that are eligible to be used as collateral to meet variation margin obligations, and (iii) require new client-facing documentation.

This material has been prepared solely for informational and educational purposes and should not be construed as a solicitation or an offer to buy or sell any security, product or other financial instrument or to participate in any investment transaction or strategy. The information contained in this publication is not intended as investment advice or a recommendation that any particular security, product, investment transaction or strategy is suitable for any specific person. The information provided herein is not exhaustive as to the matters it discusses and any information provided herein is subject to change at any time. Further, the investment transactions or strategies described herein are governed by, and subject to, certain laws, rules and regulations. Nothing contained herein should be interpreted as a comprehensive statement of such laws, rules and regulations. Rather, any such information is intended to give investors a broad overview of such laws, rules and regulations. Investors should reference the actual law, rule and regulation for a complete understanding of the law, rule and regulation. Such laws, rules and regulations are subject to change at any time and any changes may not be reflected herein. As always, investors should consult their professional advisors prior to entering into any investment transaction or strategy.

Please note that options and other OTC equity derivative transactions are not suitable for every investor. Before engaging in the purchase or sale of options or entering into other OTC equity derivative transactions, investors should understand the nature of and extent of their rights and obligations and be aware of the risks involved, including, without limitation, the risks pertaining to the business and financial condition of the issuer of the underlying security or instrument as well as the credit risk of the financial institution counterparty to the transaction. Investing in options and other OTC equity derivative transactions, like investing in other instruments, involves tax considerations, transaction costs and margin requirements that can significantly affect the profit and loss of buying and selling options or entering into other OTC equity derivative transactions. In addition, investors should not enter into any options transactions or other OTC equity derivative transactions until they have read and understood the "Characteristics and Risks of Standardized Options" disclosure document (ODD) which your financial advisor can provide you.

This material may mention options regulated by the US Securities and Exchange Commission. Before buying or selling options you should obtain and review the current version of the Options Clearing Corporation booklet, Characteristics and Risks of Standardized Options. A copy of the booklet can be obtained upon request from

Citigroup Global Markets Inc., 390 Greenwich Street, 3rd Floor, New York, NY 10013.

Citigroup does not render advice on tax and tax accounting matters to clients. This material was not intended or written to be used, and it cannot be used by any taxpayer, for the purpose of avoiding penalties that may be imposed on the taxpayer under U.S. federal tax laws. You should always consult your own legal or tax advisor for information concerning your individual situation.

Risk of OTC Options

1. Risks of Option Holders:

- An option holder runs the risk of losing the entire amount paid for the option in a relatively short period of time
- An OTC option holder assumes the credit risk of the counterparty
- The more an option is out of the money and the shorter the remaining time to expiration, the greater the risk that an option holder will lose all or part of his investment in the option
- Prior to the period when a European-style option or a capped option is exercisable, the only means through which the holder can realize value from the option (unless the capped option is automatically exercised) is to sell it at its then market price in an available secondary market
- The exercise provisions of an option may create certain risks for the option holders

2. Risks of Option Writers:

- The writer of a covered call forgoes the opportunity to benefit from an increase in the value of the underlying interest above the option price, but continues to bear the risk of a decline in the value of the underlying interest
- The writer of an uncovered call is in an extremely risky position and may incur large losses if the value of the underlying interest increases above the exercise price
- As with writing uncovered calls, the risk of writing put options is substantial. The writer of a put option bears a risk of loss if the value of the underlying interest declines below the exercise price, and such loss could be substantial if the decline is significant
- The risk of being an option writer may be reduced by the purchase of other options on the same underlying interest — and thereby assuming a spread position — or by acquiring other types of hedging positions in the options markets or other markets. However, even where the writer has assumed a spread or other hedging position, the risks may still be significant
- The obligation of a writer of an uncovered call or of a put that is not cash-secured to meet applicable margin requirements creates additional risks
- Since the leverage inherent in an option can cause the impact of price changes in the underlying interest to be magnified in the price of the option, a writer of an option that is uncovered and un-hedged may have a significantly greater risk than a short seller of the underlying interest
- If a trading market in an option should become unavailable, or if the writers of the option are otherwise unable to engage in closing transactions, the writers of that option would remain obligated until expiration or assignment
- A sudden development may cause a sharp upward or downward spike in the value of the interest underlying a capped option

3. Special Risks of index options:

- Writers of cash-settled index call options cannot provide in advance for their potential settlement obligations by acquiring and holding the underlying interest
- Even if the writer of a cash-settled index call option could assemble a securities portfolio that exactly reproduced the composition of the underlying index, the writer still would not be fully covered from a risk standpoint because of the "timing risk" inherent in writing cash-settled options
- Readers intending to use index options to hedge against the market risk entailed in investing in individual securities should recognize the complexities of utilizing index options in this manner
- Just as holders and writers of stock options bear the risk that transactions in the underlying security may be erroneously reported, holders and writers of index options bear the risk that the reported current index level may be in error. Current index levels will ordinarily continue to be reported even when trading is delayed or interrupted in some or all of the constituent securities of the index or when the reporting of transactions in those securities has been delayed

Option Spreads:
Although spread positions do limit losses, they are complex strategies that are not suitable for all investors. There are situations where the short leg will be exercised and an investor may not be able to exercise the long leg in a timely manner, depending on market conditions. This could result in greater losses. Spreading requires posting of margin.

Covered Call writing:
Covered call writing is considered a more conservative strategy than outright stock ownership because the investor's downside risk is partially offset by the premium received for selling the call option however the investor forgoes appreciation in the stock price above the strike price of the option sold.

Derivatives:
Derivatives are financial contracts whose value depends on, or is derived from, the value of an underlying asset, reference rate or index. Typically derivatives are used as a substitute for taking a position in the underlying asset and/or as part of a strategy designed to reduce exposure to other risks, such as interest rate or currency risk. They may also use derivatives for leverage, in which case their use would involve leveraging risk. The use of derivative instruments involves risks different from, or possibly greater than, the risks associated with investing directly in securities and other traditional investments. Derivatives are subject to a number of risks described elsewhere in this section, such as liquidity risk, interest rate risk, market risk, credit risk and management risk. They also involve the risk of mispricing or improper valuation and the risk that changes in the value of the derivative may not correlate perfectly with the underlying asset, rate or index. When investing in a derivative instrument one could lose more than the principal amount invested. Also, suitable derivative transactions may not be available in all circumstances and there can be no assurance that engaging in these transactions to reduce exposure to other risks would be beneficial.

Important Disclosures

In any instance where distribution of this communication ("Communication") is subject to the rules of the U.S. Commodity Futures Trading Commission ("CFTC"), this communication constitutes an invitation to consider entering into a derivatives transaction under U.S. CFTC Regulations §§ 1.71 and 23.605, where applicable, but is not a binding offer to buy/sell any financial instrument.

This Communication is prepared by Citi Private Bank ("CPB"), a business of Citigroup, Inc. ("Citigroup"), which provides its clients access to a broad array of products and services available through Citigroup, its bank and non-bank affiliates worldwide (collectively, "Citi"). Not all products and services are provided by all affiliates, or are available at all locations.

CPB personnel are not research analysts, and the information in this Communication is not intended to constitute "research", as that term is defined by applicable regulations. Unless otherwise indicated, any reference to a research report or research recommendation is not intended to represent the whole report and is not in itself considered a recommendation or research report.

This Communication is provided for information and discussion purposes only, at the recipient's request. The recipient should notify CPB immediately should it at any time wish to cease being provided with such information. Unless otherwise indicated, (i) it does not constitute an offer or recommendation to purchase or sell any security, financial instrument or other product or service, or to attract any funding or deposits, and (ii) it does not constitute a solicitation if it is not subject to the rules of the CFTC (but see discussion above regarding communication subject to CFTC rules) and (iii) it is not intended as an official confirmation of any transaction.

Unless otherwise expressly indicated, this Communication does not take into account the investment objectives, risk profile or financial situation of any particular person and as such, investments mentioned in this document may not be suitable for all investors. Citi is not acting as an investment or other advisor, fiduciary or agent. The information contained herein is not intended to be an exhaustive discussion of the strategies or concepts mentioned herein or tax or legal advice. Recipients of this Communication should obtain advice based on their own individual circumstances from their own tax, financial, legal and other advisors about the risks and merits of any transaction before making an investment decision, and only make such decisions on the basis of their own objectives, experience, risk profile and resources.

The information contained in this Communication is based on generally available information and, although obtained from sources believed by Citi to be reliable, its accuracy and completeness cannot be assured, and such information may be incomplete or condensed. Any assumptions or information contained in this Communication constitute a judgment only as of the date of this document or on any specified dates and is subject to change without notice. Insofar as this Communication may contain historical and forward looking information, past performance is neither a guarantee nor an indication of future results, and future results may not meet expectations due to a variety of economic, market and other factors. Further, any projections of potential risk or return are illustrative and should not be taken as limitations of the maximum possible loss or gain. Any prices, values or estimates provided in this Communication (other than those that are identified as being historical) are indicative only, may change without notice and do not represent firm quotes as to either price or size, nor reflect the value Citi may assign a security in its inventory. Forward looking information does not indicate a level at which Citi is prepared to do a trade and may not account for all relevant assumptions and future conditions. Actual conditions may vary substantially from estimates which could have a negative impact on the value of an instrument.

Views, opinions and estimates expressed herein may differ from the opinions expressed by other Citi businesses or affiliates, and are not intended to be a forecast of future events, a guarantee of future results, or investment advice, and are subject to change without notice based on market and other conditions. Citi is under no duty to update this document and accepts no liability for any loss (whether direct, indirect or consequential) that may arise from any use of the information contained in or derived from this Communication.

Citi often acts as an issuer of financial instruments and other products, acts as a market maker and trades as principal in many different financial instruments and other products, and can be expected to perform or seek to perform investment banking and other services for the issuer of such financial instruments or other products. The author of this Communication may have discussed the information contained therein with others within or outside Citi, and the author and/or such other Citi personnel may have already acted on the basis of this information (including by trading for Citi's proprietary accounts or communicating the information contained herein to other customers of Citi). Citi, Citi's personnel (including those with whom the author may have consulted in the preparation of this communication), and other customers of Citi may be long or short the financial instruments or other products referred to in this Communication, may have acquired such positions at prices and market conditions that are no longer available, and may have interests different from or adverse to your interests.

If you chose to engage in the options transactions discussed within this document, you must have an approved options account and will be subject to certain criteria which may ultimately prevent you from engaging in certain option strategies. It is important for you as an investor to know and understand that Options do involve risk and sometimes, significant risk, therefore may not be appropriate for all investors. Options are not suitable for all investors. If you buy options, the maximum loss is the premium. If you sell put options, the risk is the entire notional below the strike. If you sell call options, the risk is unlimited. The actual profit or loss from any trade will depend on the price at which the trades are executed. Please speak to your Financial Advisor to ensure you have a full understanding of the risk and reward of the strategy you are considering. Strategies that are opened or closed differently than what is discussed in this document could have a significantly different outcome from what is described. It should be noted that certain Index options might have special settlement dates or settlement requirements that are different from traditional equity options. Commissions, taxes, and margin costs will affect the outcome of any option transaction and can have a significant impact on the profitability of options transactions and should be considered carefully before entering into any option strategy. Because of the importance of tax considerations to all option transactions, the investor considering options should consult with his/her tax advisor as to how their tax situation is affected by

the outcome of contemplated options transactions. Certain options trades/strategies must be executed in a margin account. Transactions executed in a margin account can require the investor to periodically deposit additional collateral into the account in order to maintain the positions. The preceding language is not a full description of all possible risks associated with options trading.

Before buying or selling options you should obtain and review the current version of the Options Clearing Corporation booklet, Characteristics and Risks of Standardized Options.

If you would like an additional copy of this document please contact Citigroup Global Markets Inc., Options Department, 390 Greenwich Street, New York, NY 10013 or from your Financial Advisor.

Citi Private Bank is a business of Citigroup Inc. (“Citigroup”), which provides its clients access to a broad array of products and services available through bank and non-bank affiliates of Citigroup. Not all products and services are provided by all affiliates or are available at all locations.

In the U.S., investment products and services are provided by Citigroup Global Markets Inc. (“CGMI”), member FINRA and SIPC, and also Citi Private Advisory, LLC (“CPA”), member FINRA and SIPC and Citi Global Alternatives, LLC ("CGA"). CGMI accounts are carried by Pershing LLC, member FINRA, NYSE, SIPC. CGMI, CPA, CGA and Citibank, N.A. are affiliated companies under the common control of Citigroup.

Outside the U.S., investment products and services are provided by other Citigroup affiliates. Investment Management services (including portfolio management) are available through CGMI, CGA, Citibank, N.A. and other affiliated advisory businesses.

Canada disclosures

Citi Private Bank is a business of Citigroup Inc. (“Citigroup”), which provides its clients access to a broad array of products and services available through bank and non-bank affiliates of Citigroup. Not all products and services are provided by all affiliates or are available at all locations. In Canada, Citi Private Bank is a division of Citibank Canada, a Schedule II Canadian chartered bank. References herein to Citi Private Bank and its activities in Canada relate solely to Citibank Canada and do not refer to any affiliates or subsidiaries of Citibank Canada operating in Canada. Certain investment products are made available through Citibank Canada Investment Funds Limited (“CCIFL”), a wholly owned subsidiary of Citibank Canada. Investment Products are subject to investment risk, including possible loss of principal amount invested. Investment Products are not insured by the CDIC, FDIC or depository insurance regime of any jurisdiction and are not guaranteed by Citigroup or any affiliate thereof.

This document is for information purposes only and does not constitute an offer to sell or a solicitation of an offer to buy any securities to any person in any jurisdiction. Any investment in any securities described in this document will be made solely on the basis of an offering memorandum.

Accordingly, this document should not form the basis of, and should not be relied upon in connection with, any subsequent investment in these securities. To the extent that any statements are made in this document in relation to the products referred to herein, they are qualified in their entirety by the terms of the offering memorandum and other related documents pertaining thereto. The information set out herein may be subject to updating, completion, revision, verification and amendment and such information may change materially. Prospective investors should carefully review the offering memorandum and other related documents before making a decision to invest.

No express or implied representations are made regarding these products, including without limitation, no representations are made concerning investment results or any legal, accounting, regulatory or tax treatment of an investment in any jurisdiction that might be relevant to a recipient of this document. In particular, this document has not been customized for Canadian investors and an investment in the products may have investment considerations and risks that could have a significant effect on a Canadian investor. In making any eventual investment decision, potential investors are advised to seek independent professional advice to understand all attendant considerations and risks attached to these securities.

Citigroup, its affiliates and any of the officers, directors, employees, representatives or agents shall not be held liable for any direct, indirect, incidental, special, or consequential damages, including loss of profits, arising out of the use of information contained herein, including through errors whether caused by negligence or otherwise.

Notwithstanding anything to the contrary, you hereby agree that neither Citigroup nor any of its affiliates make any statement or representation, express or implied, as to Canadian tax matters in respect of the transaction, whether in connection with any presentation of the transaction, your consideration of the transaction, any discussion in respect of the transaction or otherwise or at any time, and nothing in these materials constitutes or should be considered to constitute such as statement or representation as to any Canadian tax matters in respect of the transaction.

Using borrowed money to finance the purchase of securities involves greater risk than a purchase using cash resources only. If you borrow money to purchase securities, your responsibility to repay the loan and pay interest as required by its terms remains the same even if the value of the securities purchased declines.

CCIFL is not currently a member, and does not intend to become a member of the Mutual Fund Dealers Association of Canada (“MFDA”); consequently, clients of CCIFL will not have available to them investor protection benefits that would otherwise derive from membership of CCIFL in the MFDA, including coverage under any investor protection plan for clients of members of the MFDA.

2073690 01/22