

Learn to trade options

OPTION STRATEGIES FOR INTERMEDIATE TRADERS



PREFACE

Dear trader,

“I know the basics of trading options. What’s next?”

Clients often ask me this question. My response is usually something like this: learn how to include options that help you profit even when prices are static AND help protect your holdings during market volatility.

Those two qualities are hallmarks of intermediate options strategies.

Are you ready to get to the next level? Great, because you’re about to read (and watch) **option strategies for intermediate traders**, the second of three eBooks in our series: **learn to trade options**. It takes you deeper into options trading with five more advanced multi-leg strategies, including calendar calls and puts, that can be used for a neutral market.

I hope this book series helps you expand your trading skills. And if you have a question, ask me at helpfeedback@questrade.com.

You have more options. Enjoy trading them.

Edward Kholodenko
President & CEO, Questrade, Inc.

CHAPTER 1

INTRODUCTION TO OPTIONS

An option is a contract between two market participants that gives the option holder the right, but not the obligation, to buy or sell a specified number of shares at a fixed price up to the option expiration date. The option to buy or sell must be exercised before and/or at the expiration date, depending on the option style (American or European).

Option types

There are two types of options:

- **Call:** gives the owner the right to buy a specified number of shares of the underlying stock at the strike price up to the set expiration date.
- **Put:** gives the owner the right to sell a specified number of shares of the underlying stock at the strike price up to the set expiration date.

Option quotes

A typical option quote will contain the following elements:

Underlying stock: security that must be delivered when an option contract is exercised.

Example: THI.TO

Quantity: number of option contracts the option owner will purchase.

In this example, 1000 shares will be purchased since one standard option contract equals 100 shares.

One standard option contract = 100 shares

One mini option contract = 10 shares

Example: 10

Expiry: date at which an option owner can exercise the right to buy (or sell) shares of the underlying stock.

Example: Mar 16 2013

Strike: price at which the option owner can buy (or sell) the shares.

Example: 52.00

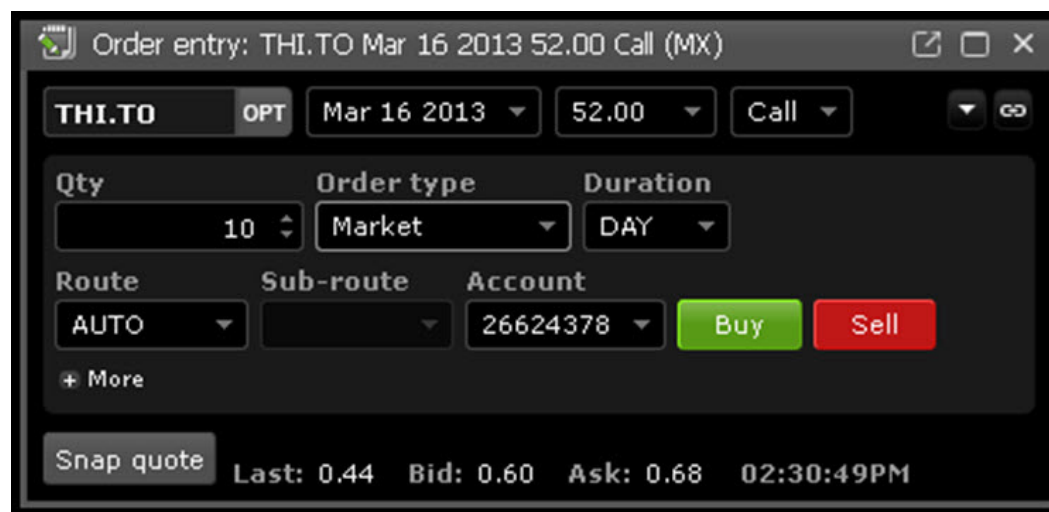
Type: specifies whether the option is a Call or Put option.

Example: Call

Price: premium paid or received to buy or sell one option contract. The premium is calculated per share.

In the example below, the buyer of the option would need to pay \$680 (\$0.68 premium x 10 contracts x 100 shares) to purchase a call option on the underlying security.

Example: 0.68



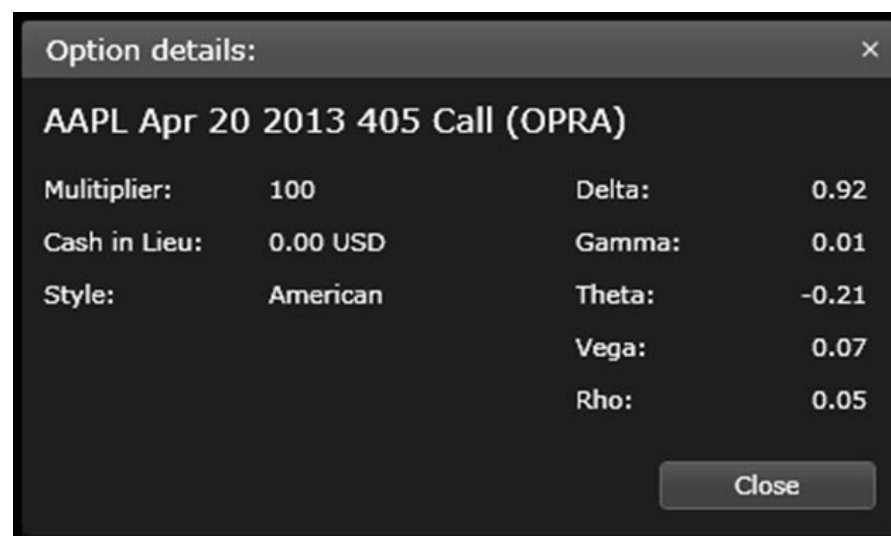
Option quote in IQ Edge

Option styles

There are two common types of options – **American** and **European** – which are also referred to as “plain vanilla” options. In general, an American option may be exercised any time before the expiration date, while a European option may only be exercised at the expiration date.

Almost all stock options are American options, while indices are typically classified as European options.

To view option dates in your IQ trading platform, right-click the strike price and choose **Option details**.



Option details in IQ Web

Option assignments

If an option finishes in the money at expiration by \$0.01 cent or more, it will be automatically assigned. In some cases, in-the-money options may not be automatically exercised. When this is the case, Questrade will attempt to notify clients on a best-efforts basis. To learn more about option exercise and assignment policies, please visit [myQuestrade](#).

Number of shares per option contract

One standard option contract represents a deliverable of 100 shares of the underlying stock, while one mini option contract represents a deliverable of ten shares.

Option premium

To buy an option contract, you must pay a premium to the seller. Conversely, when you sell an option contract, you receive a premium from the buyer.

All option premiums are calculated per share. For example, 100 shares x premium per share = cost or profit of option contract.

Important terminology

To understand and trade options, you'll need to familiarize yourself with some general terminology:

Assign

The act of the seller fulfilling the obligation of the option contract when the buyer of the option exercise their rights.

Seller of the Call options will need to deliver shares of the underlying stock to the buyer at the strike price.

Seller of the Put options will need to purchase shares of the underlying stock from the buyer at the strike price.

At-the-money

When the option's strike price is identical to the current trading price of the underlying stock.

Call

Gives the owner the right to buy a specified number of shares of the underlying stock at the strike price up to the set expiration date.

Expiration

The date at which an option contract expires. This means that the option cannot be exercised after that date.

Extrinsic value

The difference between an option's market price and its intrinsic value.

In-the-money

When the option contract has a positive value if exercised:

Call option: the stock price is above the strike price

Put option: the stock price is below the strike price

Intrinsic value

The difference between the current market value of the underlying stock and the strike price of an option. In-the-money is the term used when the intrinsic value is positive.

Long

A term that refers to ownership of securities. For example, if you are long 100 shares of XYZ, this means that you own 100 shares of XYZ company.

Option premium

The amount per share the option buyer pays to the option seller to purchase an option contract consisting of 100 shares in a standard contract, or 10 shares in a mini option contract.

Out-of-the-money

When the option contract has no intrinsic value:

Call option: the stock price is below the strike price

Put option: the stock price is above the strike price

Put

Gives the owner the right to sell a specified number of shares of the underlying stock at the strike price up to the set expiration date.

Short

The act of selling a stock or option that you don't own. This is a speculative practice done when the seller believes a stock's price is going to fall and the seller will be able to cover the sale by buying the security back at a lower price. The profit is the difference between the initial selling price and the subsequent purchase price.

Strike

The price at which the owner of an option can purchase or sell the underlying security.

Time value

The difference between an option's premium and its intrinsic value.

CHAPTER 2

OPTION STRATEGIES

For intermediate traders

Option strategies allow traders to limit their risk and maximize their return, while controlling more positions for less money than trading stocks. They also allow traders to profit in any type of market – upward, downward, or neutral.

An option strategy involves the buy (and/or sell) of one or more option types (calls or puts) – usually simultaneously - which allows a trader to potentially profit from an underlying stock's price movements or stagnant state.

In the following sections, we'll describe each strategy using detailed examples, including the benefits and downsides.

The following strategies are ideal for intermediate traders:

- Collar
- Diagonal call
- Diagonal put
- Calendar call
- Calendar put

CHAPTER 3

COLLAR

A collar is an option strategy in which a trader holds a position on the underlying stock and simultaneously buys a protective put while selling a call option against the same stock. In most cases, both options expire within the same month.

This strategy protects the trader against the sharp decline of the share price while still earning an option premium from writing the covered call.

As the seller of the call option, you are obligated to sell the stock you already own at the strike price if the buyer exercises the call option. Likewise, the seller of the put option has the obligation to buy the asset at the strike price if you exercise the put option.

Your market outlook

Neutral

Who should run this strategy

Intermediate to advanced traders

Strategy benefits

Receive income from the option premium when you sell call options

Offset losses if your stock depreciates in value

Maximum loss is limited

Strategy downsides

May lose your stocks if the stock value rises beyond the strike price of the option

Limited profit potential

Setting up the strategy

1. You buy or own the underlying stock.
2. Buy one protective put option.
3. Sell one call option with the same expiry date as the put option.

Ideally, you want to set up both options to be slightly out-of-the-money.

Option level required

To trade options within your account, your level of options trading must be approved. Option levels can be modified in [myQuestrade](#).

Option strategy: Short collar

Option level required: Level 2

Option strategy: Long collar

Option level required: Level 2

Questrade's margin requirements

[Learn more](#) about Questrade's option margin requirements.

Collar example

Scenario

You buy 100 shares of ABC stock currently valued at \$20 per share (\$2,000) in February. To protect yourself against the potential sharp decline of the share price, you purchase a \$17 out-of-the-money (OTM) put option for \$100 (\$1 x 100 shares = \$100) that expires in January of next year. To complete the collar, you simultaneously sell a \$30 OTM call option for \$250 (\$2.50 x 100 shares = \$250) that also expires in January of next year.

Your initial investment would be \$2,000 (100 shares) plus \$100 for the put option, minus \$250 for selling the call option. This would make your total investment \$1,850.

This strategy means that you:

- as the buyer of the put option, have the right to sell the shares at \$17 before the expiration date.
or
- as the seller of the call option, have the obligation to sell the shares at \$30 before the expiration date.

Possible results

1. ABC shares rise to \$32 on the expiration date, meaning that they are up 12 points from the \$20 original value. Since the call option's strike value (\$30) is lower than the \$32 trading value, the call is exercised by the buyer. Although you miss out on an additional \$200 profit (\$2 x 100 shares), your total profit would still be \$1,150 (\$3,000 – \$1,850 initial investment).
2. ABC shares drop to \$15 per share on the expiration date, losing \$5 off its original value, resulting in a \$500 loss. However, since you purchased a protective put option, you have the right to sell the shares at \$17 per share, by exercising your put and receive \$1700. \$1700 - \$1850 initial investment = -\$150 loss.

Profit and loss explained

Maximum profit

Maximum profit = [(strike price of call option – original purchase price of stock) x number of stocks] + [(call option premium – put option premium) x number of contracts x 100]

Maximum loss

Maximum loss = [(original purchase price of stock – strike price of the put option) x number of stocks] + [(put option premium – call option premium) x number of contracts x 100]

Break-even at expiration

Break-even point = original purchase price of stock + put option premium per share – call option premium per share

Option strategy: Long Collar

Option level required: Level 2

Stock value at start of strategy: \$20

To execute the collar strategy:

Buy: 100 shares for \$2,000

Buy: 17 put option for \$100

Sell: 30 call option for \$250

Result: \$1,850 net debit

Scenario 1

Stock price at expiration: \$15

17 long put option exercised at expiration.

Profit and loss calculations:

Stock loss: (\$20 stock purchase price – 17 put option strike price) x 100 shares = -\$300

+ Option premium paid: (\$1.00 premium x 100 shares) = -\$100

+ Option premium received: (\$2.50 premium x 100 shares) = \$250

= -\$150 loss

Scenario 2

Stock price at expiration: \$32

30 short call option exercised at expiration.

Profit and loss calculations:

Stock profit: (30 call strike price – \$20 stock purchase price) x 100 shares = \$1,000

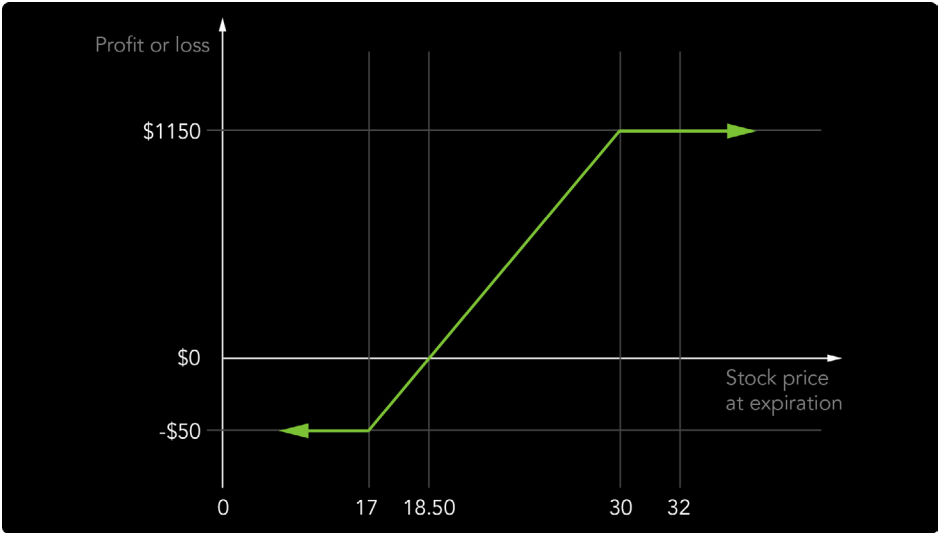
+ Option premium received: (\$2.50 premium x 100 shares) = \$250

– Option premium paid: (\$1.00 premium x 100 shares) = -\$100

= \$1,150 profit

Note: commission fees are not included in the above calculations.

Collar call payoff diagram



Real-world example

Learn how to set up a [collar](#) in IQ, and see it in action.



CHAPTER 4

DIAGONAL CALL

A diagonal call is an option strategy in which a trader simultaneously buys one long-term call option while selling a near-term call option of the same symbol.

Your market outlook

Near-term neutral; long-term bullish

Who should run this strategy

Intermediate to advanced traders

Strategy benefits

Offset the cost of the long-term call by selling several near-term, out-of-the-money calls

Maximum loss is limited to the initial debit for entering into the strategy

Strategy downsides

Maximum profit is limited

Setting up the strategy

1. Sell one near-term call option on the underlying stock.
2. Buy one long-term call option on the same underlying stock.
3. At expiration of the first near-term call option, sell another call option that expires after the first near-term call at the same strike price.

Option level required

To trade options within your account, your level of options trading must be approved. Option levels can be modified in [myQuestrade](#).

Option strategy: Long diagonal call (sell front month; buy later month)

Option level required: Level 3, with the exception of European options.

* Long and short calendar and diagonal strategies with European options are margined as separate legs. Please see level 4 for details.

Option strategy: Short diagonal call (buy front month; sell later month)

Option level required: Level 4

Questrade's margin requirements

[Learn more](#) about Questrade's option margin requirements.

Diagonal call example

Scenario

ABC shares are currently trading at \$13 in February 2013, and you believe the stock will remain stagnant in the short term, but will rise gradually over the next six months. To set up a diagonal call strategy, you do the following:

- Buy one September long-term 13 call option for \$300 (\$3 option premium x 100 shares).
- Sell one March near-term 17 call option for \$110 (\$1.10 option premium x 100 shares).

To enter into this strategy, you will be initially debited \$190.

Possible results

1. At expiry in March, ABC shares close at \$13.50, meaning the near-term 17 call option expires worthless. This allows you to write another near-term option that expires in April for \$110. The stock continues to rise by 50 cents each month, allowing you to write several near-term call options. Including the first near-term option, you wrote three near-term call options in total, resulting in \$330. After subtracting the \$300 to buy the long-term call, this would actually leave you with a \$30 credit.
2. When the long-term call option expires, ABC shares are trading at \$17.50; as a result, the long-term call finishes in the money and carries a \$4.50 intrinsic value per share x 100 = \$450. After adding the \$30 credit received from the selling the short term calls, your total profit would be \$480.
3. At the end of the near-term expiry in March, the shares drop in price to \$11, meaning that the call option expires worthless. The stock continues to plummet over the next several months, and at the long-term call's expiration, it closes at \$8. This means that the long-term call option also expires worthless, and you will lose your entire investment of \$190.
4. At the end of the near-term expiry in March, the shares rise in price to \$21, meaning that the March 17 Call option gets assigned. You can exercise your Sept 13 Call to buy the shares at \$13, and sell it at \$17. Total profit becomes $[(\$17 - \$13) * 100] - \$190 \text{ initial investment} = \210 .

Profit and loss explained

Maximum profit

Maximum profit = option premium received from selling near-term call option - option premium to buy long-term call option + expiration value of long-term call

Maximum loss

Maximum loss = initial debit required to enter into the strategy

Break-even at expiration

Given the two expiration dates, there are too many variables in play to accurately predict the break-even point.

In the following table you'll see the potential profit and loss, depending on the stock's price at the time of expiration:

- Original stock price in Feb 2013: \$13
- Sold one Mar 2013, 17 near-term call option

- Bought one Sept 2013, 13 long-term call option
- After Mar 2013 expired worthless, sold an April 2013, 17 near-term call option and repeated this three more times.

Stock value at start of strategy: \$13

To execute the diagonal call strategy:

Sell: Mar 17 call option for \$110

Buy: Sep 13 call option for \$300

Result: \$190 net debit at start of strategy

Sell: Apr 17 call option after March for \$110. After expiry, Sell: May 17 call option after April for \$110.

Result: \$30 credit ($110 + 110 - 190$)

Result 1

Scenario 1

Stock price at expiration: \$13.50 in March (first near-term expiry)

Options not exercised at expiration.

Profit and loss calculations:

Option premium received: ($\$1.10$ near-term call premium \times 1 contract \times 100 shares) = \$110 credit

– Option premium paid: ($\$3.00$ long-term call premium \times 1 contract \times 100 shares) =

–\$300 + expiration value of long-term call

= –\$190 net debit (after one month) + expiration value of Sep 13 call

Scenario 2

Stock price at expiration: \$14 in April (second near-term expiry)

Options not exercised at expiration.

Profit and loss calculations:

Option premium received: ($\$1.10$ near-term call premium \times 1 contract \times 100 shares) = \$110 credit

– Option premium paid after applying the first credit: ($\$1.90$ long-term call premium \times 1 option contract \times 100 shares) = –\$190 + expiration value of long-term call

= –\$80 net debit (after two months) + expiration value of Sep 13 call

Scenario 3

Stock price at expiration: \$14.50 in May (third near-term expiry)

Options not exercised at expiration.

Profit and loss calculations:

Option premium received: Option premium received: ($\$1.10$ near-term call premium \times 1 contract \times 100 shares) = \$110 credit

+ Option premium paid after applying the second credit: ($\$0.80$ long-term call premium \times 1 contract \times 100 shares) = –\$80 + expiration value of long-term call

= \$30 net credit (after three months) + expiration value of Sep 13 call

Scenario 4

Stock price at expiration: \$17.50 in September (long-term expiry)

13 long call option exercised at expiration.

Profit and loss calculations:

Stock profit: ($\$17.50$ stock price at option expiration – 13 long-term call strike price)

\times 1 contract \times 100 shares = \$450

+ \$30 net credit (after writing three near-term calls and buying the sept 13 call).
= \$480 profit

Result 2

Scenario 1

Stock price at expiration: \$11 in March (near-term expiry)

Options not exercised at expiration.

Profit and loss calculations:

Option premium received: (\$1.10 near-term call premium x 1 contract x 100 shares) = \$110 credit

- Option premium paid: (\$3.00 long-term call premium x 1 contract x 100 shares) =

-\$300

= -\$190 net debit (after one month) + expiration value of Sep 13 call

Scenario 2

Stock price at expiration: \$8 in September (long-term expiry)

Options not exercised at expiration.

Profit and loss calculations:

Maximum loss (assuming no other near-term calls are written)

Option premium received: (\$1.10 near-term call premium x 1 contract x 100 shares) = \$110 credit (after one month)

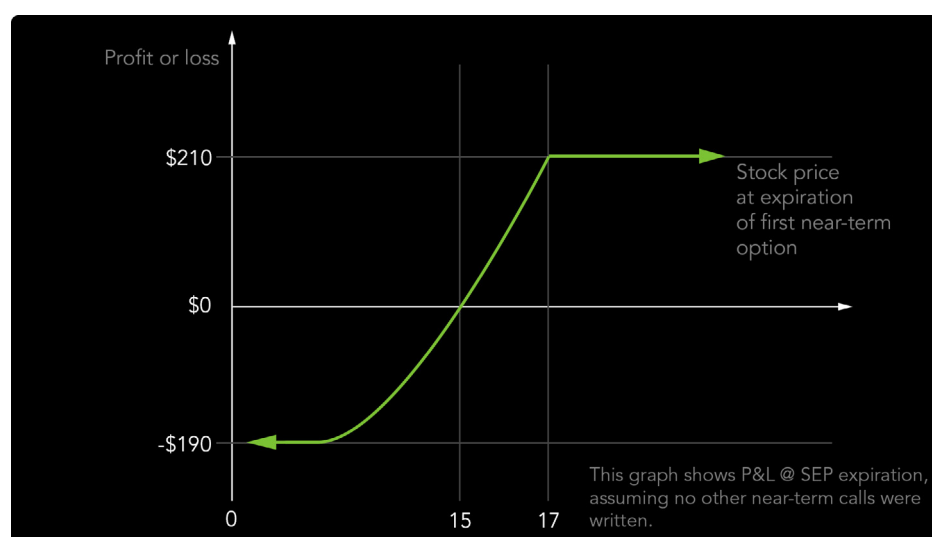
- Option premium paid: (\$3.00 long-term call premium x 1 contract x 100 shares) =

-\$300

= -\$190 loss with no expiration value of Sep 13 call

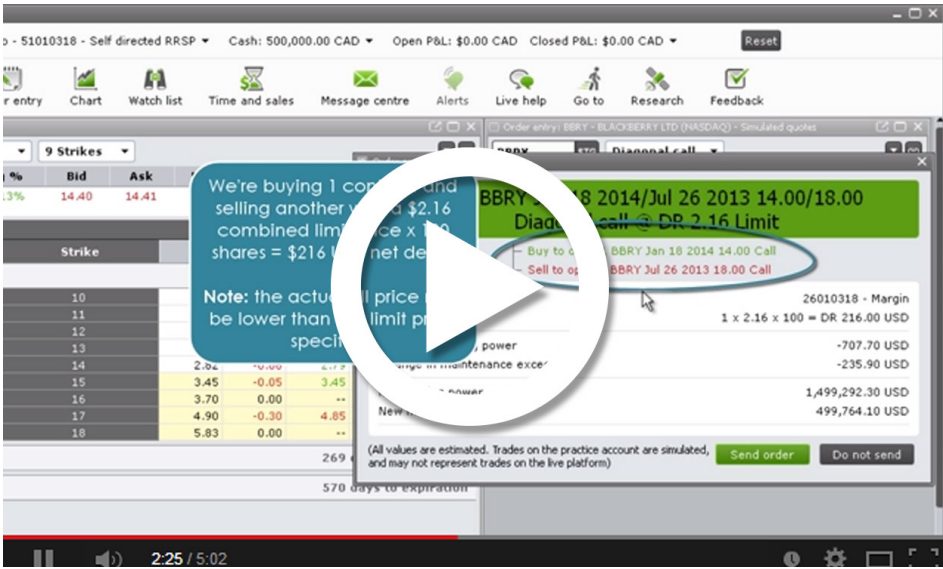
Note: commission fees are not included in the above calculations.

Diagonal call payoff diagram



Real-world example

Learn how to set up a [diagonal call](#) in IQ, and see it in action.



CHAPTER 5

DIAGONAL PUT

A **diagonal put** is an option strategy in which a trader buys one long-term put option while simultaneously selling a near-term put option of the same symbol.

Your market outlook

Near-term neutral; long-term bearish

Who should run this strategy

Intermediate to advanced traders

Strategy benefits

- Offset the cost of the long-term put by selling several near-term out-of-the-money puts
- Considered a low risk strategy since the maximum loss is limited to the initial debit for entering into the strategy

Strategy downsides

Maximum profit is limited

Setting up the strategy

1. Buy one long-term put option on the underlying stock.
2. Sell one near-term put option on the same underlying stock.
3. At expiration of the first near-term put option, sell another put option that expires one month after the first near-term put at the same strike price. Repeat as many times as you wish up to the long-term put's expiration.

Option level required

To trade options within your account, your level of options trading must be approved. Option levels can be modified in [myQuestrade](#).

Option strategy: Long diagonal put (sell front month; buy later month)

Option level required: Level 3, with the exception of European options.

* Long and short calendar and diagonal strategies with European options are margined as separate legs. Please see level 4 for details.

Option strategy: Short diagonal put (buy front month; sell later month)

Option level required: Level 4

Questrade's margin requirements

[Learn more](#) about Questrade's option margin requirements.

Diagonal put example

Scenario

ABC shares are currently trading at \$13 in February 2013, and you believe the stock will remain stagnant in the short term, but slowly drop over the next several months. To set up a diagonal put strategy, you do the following:

- Buy one June long-term 13 put option for \$219 (\$2.19 option premium x 100 shares)
- Sell one March near-term 9 put option for \$60 (\$0.60 option premium x 100 shares)

To enter into this strategy, you will initially be debited \$159.

Possible results

1. Upon expiration in March, the stock drops in price to \$12.10, meaning the near-term put option expires worthless. This allows you to write another near-term option that expires in April at the same 9 strike price for \$80 (\$0.80 x 100 shares), bringing your initial investment down to \$79.
2. Upon expiration of the long-term put option in June, ABC shares close at \$9.90, meaning the long-term put finishes in the money and has an intrinsic value of \$310 (\$3.10 per share). After subtracting the \$79 debit from selling the two short-term put options, your total profit would be \$231.
3. At expiration in March, let's say the stock moves up in price to \$14. The near-term put option would expire worthless. If the stock continued its upward trend and in June is trading at \$15.50, that option would also expire worthless, and you would lose your initial investment of \$159.
4. At expiration in March, let's say the stock moves down in price to \$5. The near term put option would be assigned, meaning you will be obligated to buy the underlying at \$9. You can exercise your Jun 13 Put to short the shares at \$13, and buy to cover at \$9. Total profit becomes $[(\$13 - \$9) * 100] - \$159$ initial investment = \$241.

Profit and loss explained

Maximum profit

Maximum profit = option premium received from selling near-term put option – option premium to buy long-term put option + expiration value of long-term put

Maximum loss

Maximum loss = net debit paid to enter into the strategy

Break-even at expiration

Given the two expiration dates, there are too many variables in play to accurately predict the break-even point.

Stock value at start of strategy: \$13

To execute the diagonal put strategy:

Buy: 13 put option for \$219
Sell: 9 put option for \$60
Result: \$159 net debit at start of strategy
Sell: one more put option after the March near-term expiry in April
Result: \$79 net debit

Result 1

Scenario 1

Stock price at expiration: \$12.10 in March (first near-term expiry)
Options not exercised at expiration.
Profit and loss calculations:
Option premium received: ($\$0.60$ near-term put premium \times 1 contract \times 100 shares)
= \$60 credit
– Option premium paid: ($\$2.19$ long-term put premium \times 1 contract \times 100 shares) = -\$219
= -\$159 net debit (after one month) + expiration value of Jun 13 put

Scenario 2

Stock price at expiration: \$11.90 in April (second near-term expiry)
Options not exercised at expiration.
Profit and loss calculations:
Option premium received: ($\$0.80$ near-term put premium \times 1 contract \times 100 shares)
= \$80 credit
– Option premium paid after applying the first near-term credit: ($\$1.59$ long-term put premium \times 1 contract \times 100 shares) = -\$159
= -\$79 net debit (after two months) + expiration value of Jun 13 put

Scenario 3

Stock price at expiration: \$9.90 in June (long-term expiry)
13 long put option exercised at expiration.
Profit and loss calculations:
Stock profit: (13 put strike price - $\$9.90$ stock price at expiration) \times 1 contract \times 100 shares
= \$310
– \$79 (cost to enter the trade after applying the near-term put option credits)
= \$231 profit

Result 2

Scenario 1

Stock price at expiration: \$14 in March (near-term expiry)
Options not exercised at expiration.
Profit and loss calculations:
Option premium received: ($\$0.60$ near put premium \times 1 contract \times 100 shares)
= \$60 credit
– Option premium paid: ($\$2.19$ long-term put premium \times 1 contract \times 100 shares) = -\$219
= -\$159 net debit (after one month) + expiration value of Jun 13 put

Scenario 2

Stock price at expiration: \$15.50 in June (long-term expiry)

Options not exercised at expiration.

Profit and loss calculations:

Maximum loss (assuming no other near-term puts are written)

Option premium received: (\$0.60 near-term put premium x 1 contract x 100 shares)

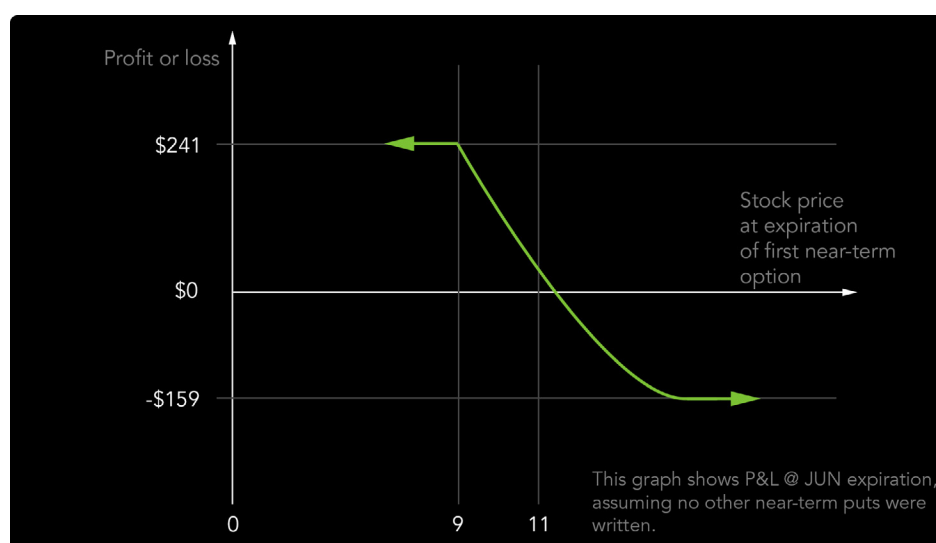
= \$60 credit (after one month)

- Option premium paid: (\$2.19 long-term put premium x 1 contract x 100 shares) = -\$219

= -\$159 loss with no expiration value of Jun 13 put

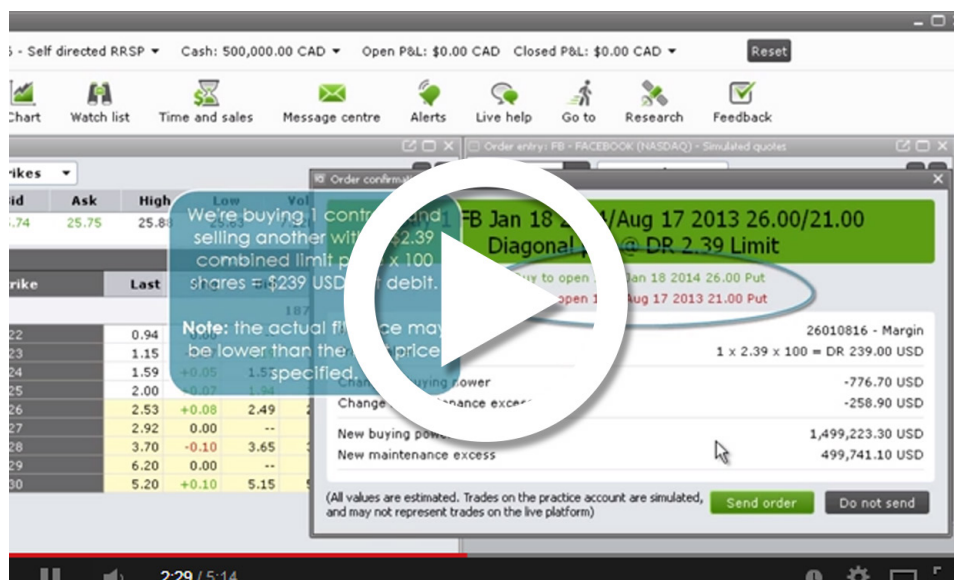
Note: commission fees are not included in the above calculations.

Diagonal put payoff diagram



Real-world example

Learn how to set up a [diagonal put](#) in IQ, and see it in action.



CHAPTER 6

CALENDAR CALL

A **calendar call** is an option strategy in which a trader sells a call option with a near-term expiration, and simultaneously buys a longer-term call option that expires after the near-term option, each with identical strike prices.

Your market outlook

Netural

Who should run this strategy

Intermediate to advanced traders

Strategy benefits

- Can still profit if the stock price does not fluctuate too much before the near-term call option expiry
- Maximum loss is limited to the initial debit for entering into the strategy
- Becomes a less expensive long call strategy if the near-term call option expires worthless

Strategy downsides

- Losses can occur if the option prices becomes deep away from the money when the near-term call option expires.
- Losses can occur if the near-term call option is assigned when the stock rises

Setting up the strategy

1. Sell one near-term, call option on the underlying stock.
2. Buy one long-term, call option on the same underlying stock.

Ideally you want the stock price to be below the strike price when the near-term call option expires, and above the strike price of the long-term call option at expiration.

Option level required

To trade options within your account, your level of options trading must be approved. Option levels can be modified in [myQuestrade](#).

Option strategy: Long calendar calls (sell front month; buy later month)

Option level required: Level 3, with the exception of European options.

* Long and short calendar and diagonal strategies with European options are margined as separate legs. Please see level 4 for details.

Option strategy: Short calendar calls (buy front month; sell later month)

Option level required: Level 4

Questrade's margin requirements

[Learn more](#) about Questrade's option margin requirements.

Calendar call example

Scenario

ABC shares are currently trading at \$28 in February, and you believe that they'll rise moderately over the next five months. To set up the calendar call strategy, you:

- Sell one March 32 call option for \$88 (\$0.88 option premium x 100 shares)
- Buy one July 32 call option for \$163 (\$1.63 option premium x 100 shares)

To enter into this strategy, you will be debited \$75.

Possible results

1. On the March expiration date, ABC shares go up two points and close at \$30, meaning the March 32 call option expires worthless. Five months later in July, ABC shares close at \$38, meaning the July 32 call option finishes in the money. The call option's intrinsic value would be \$600. Minus the initial debit of \$75 to enter into this strategy, your total profit would be \$525. Once the near-term call option expires, this becomes a long call strategy and profit potential is unlimited.
2. On the March expiration date, ABC shares close at \$32. Again, the March call option would expire worthless. At the end of the July call expiry, the price remains stagnant and closes at \$31.50, meaning it would also expire worthless. As a result, your total loss would be \$75.

Profit and loss explained

Maximum profit

Maximum profit = option premium received from selling near-term call option – option premium to buy long term call option + expiration value of long term call

Maximum loss

Maximum loss = net debit paid to enter into the strategy

Break-even at expiration

Given the two expiration dates, there are too many variables in play to accurately predict the break-even point.

Stock value at start of strategy: \$28

To execute the calendar call strategy:

Sell: 32 call option for \$88

Buy: 32 call option for \$163

Result: \$75 net debit

Result 1

Scenario 1

Stock price at expiration: \$30 in March (near-term expiry)

Options not exercised at expiration.

Profit and loss calculations:

Option premium received: ($\$0.88$ near-term call premium \times 1 contract \times 100 shares)

= \$88 credit

– Option premium paid: ($\$1.63$ long-term call premium \times 1 contract \times 100 shares) = $-\$163$

= $-\$75$ net debit + expiration value of long term call

Scenario 2

Stock price at expiration: \$38 in July (long-term expiry)

32 long call option exercised at expiration.

Profit and loss calculations:

Stock profit: ($\$38$ stock value at expiration – 32 long-term call strike) \times 1 contracts \times 100 shares = \$600

+ Option premium received: ($\$0.88$ near-term call premium \times 1 contract \times 100 shares) = \$88

– Option premium paid: ($\$1.63$ long-term call premium \times 1 contract \times 100 shares) = $-\$163$

= \$525 profit

Result 2

Scenario 1

Stock price at expiration: \$32 in March (near-term expiry)

Options not exercised at expiration.

Profit and loss calculations:

Option premium received: ($\$0.88$ near-term call premium \times 1 contract \times 100 shares)

= \$88 credit

– Option premium paid: ($\$1.63$ long-term call premium \times 1 contract \times 100 shares) = $-\$163$

= $-\$75$ net debit + expiration value of long term call

Scenario 2

Stock price at expiration: \$31.50 (long-term expiry)

Options not exercised at expiration.

Profit and loss calculations:

Option premium received: ($\$0.88$ near-term call premium \times 1 contract \times 100 shares)

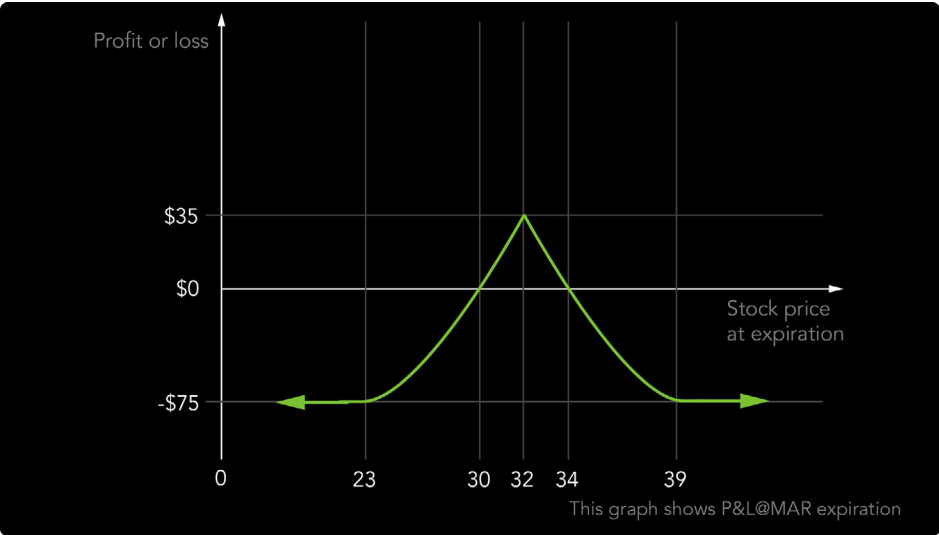
= \$88 credit

– Option premium paid: ($\$1.63$ long-term call premium \times 1 contract \times 100 shares) = $-\$163$

= $-\$75$ loss

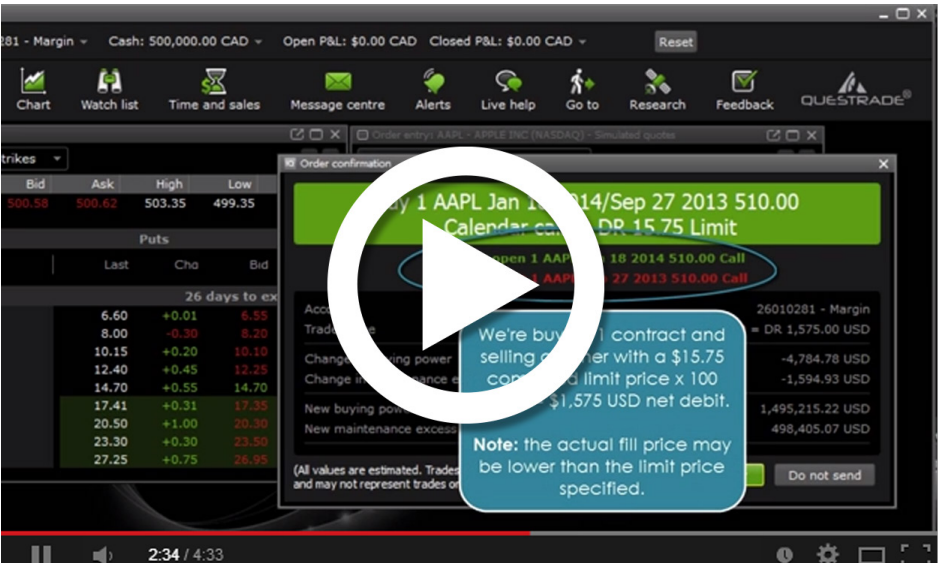
Note: commission fees are not included in the above calculations.

Calendar call payoff diagram



Real-world example

Learn how to set up a [calendar call](#) in IQ, and see it in action.



CHAPTER 7

CALENDAR PUT

A **calendar put** is an option strategy in which a trader buys a long-term put and sells a near-term put option simultaneously, each with identical strike prices.

Your market outlook

Neutral

Who should run this strategy

Intermediate to advanced traders

Strategy benefits

- Can profit from volatility and time decay
- Maximum loss is limited to the initial debit for entering into the strategy
- Offset the cost of the long-term put by selling multiple near-term put options after the first near-term put expires

Strategy downsides

- Losses can occur if the option prices becomes deep away from the money when the near-term put option expires.
- Losses can occur if the near-term put option is assigned when the stock falls.

Setting up the strategy

1. Sell one near-term put option on the underlying stock.
2. Buy one longer-term put option at the same strike price on the same underlying stock.

Ideally you want the stock price to be at or near the strike price when the near-term put option expires.

Option level required

To trade options within your account, your level of options trading must be approved. Option levels can be modified in [myQuesttrade](#).

Option strategy: Long calendar puts (sell front month; buy later month)

Option level required: Level 3, with the exception of European options.

* Long and short calendar and diagonal strategies with European options are margined as separate legs. Please see level 4 for details.

Option strategy: Short calendar puts (buy front month; sell later month)

Option level required: Level 4

Questrade's margin requirements

[Learn more](#) about Questrade's option margin requirements.

Calendar put example

Scenario

ABC shares are currently trading at \$34 in February 2013, and you believe the stock will remain stagnant in the near term, but gradually drop in the long term. To set up a calendar put strategy, you decide to do the following:

- Sell one March 34 put option for \$325 (\$3.25 option premium x 100 shares)
- Buy one January 34 put option for \$525 (\$5.25 option premium x 100 shares)

To enter into this strategy, you will be initially debited \$200.

Possible results

1. At expiry in March, the stock rises slightly to \$34.15, meaning the near-term put option expires worthless, leaving you with the long-term put option. Let's say that the stock free falls and at expiry in January 2014, it's trading at \$27. This means that you can exercise the long-term put option, resulting in a profit of \$500 = $[(34-27) \times 100] - \$200$ initial debit.
2. Another scenario would be to sell another near-term put option after the first near-term put expires worthless, especially if the long-term put expires several months later. If the second near-term put expires worthless, you'll profit again. You can repeat this process if you feel the stock will stay within a tight trading range in the near term.
3. At the end of the near-term and long-term expiries, let's assume ABC shares are trading at \$36. Both options would expire worthless.

Profit and loss explained

Maximum profit

Maximum profit = option premium received from near-term put option – option premium to buy long-term put option + expiration value of long-term put

Maximum loss

Maximum loss = initial debit required to enter into the strategy

Break-even at expiration

Given the two expiration dates, there are too many variables in play to accurately predict the break-even point.

Stock value at start of strategy: \$34

To execute the calendar call strategy:

Sell: 34 put option for \$325

Buy: 34 put option for \$525

Result: \$200 net debit

Sell: 34 call option one more time for \$360 after March near-term expiry in April.
Result: \$160 profit

Result 1

Scenario 1

Stock price at near-term expiration: \$34.15 in Mar 2013

Options not exercised at expiration.

Profit and loss calculations:

Option premium received: (\$3.25 near-term put premium) x 100 shares = \$325

– Option premium paid: (\$5.25 long-term put premium) x 100 shares = -\$525

= -\$200 net debit + expiration value of long term put

Scenario 2

Stock price at long-term expiration: \$27 in Jan 2014

34 long put option exercised at expiration.

Profit and loss calculations:

Stock profit: (34 long put strike price – \$27 stock price at expiration) x 100 shares = \$700

+ Option premium received: (\$3.25 near-term put premium) x 100 shares = \$325

– Option premium paid: (\$5.25 long-term put premium) x 100 shares = -\$525

= \$500 profit

Result 2

Scenario 1

Stock price at near-term expiration: \$34.15 in Mar 2013

Options not exercised at expiration.

Profit and loss calculations:

Option premium received: (\$3.25 near-term put premium) x 100 shares = \$325

– Option premium paid: (\$5.25 long-term put premium) x 100 shares = -\$525

= -\$200 net debit + expiration value of long term put

Scenario 2

Stock price at near-term expiration: \$34.30 in April 2013

Options not exercised at expiration.

Profit and loss calculations:

In this case, you would realize a profit if you wrote a second near-term put option that expired worthless, regardless of the direction of the long-term put option.

Option premium received for second near-term option: (\$3.60 near-term put premium) x 100 shares = \$360

+ Initial option premium received: (\$3.25 near-term put premium) x 100 shares = \$325

– Initial option premium paid: (\$5.25 long-term put premium) x 100 shares = -\$525

= \$160 profit + expiration value of long term put

Scenario 3

Stock price at long-term expiration: \$35 in Jan 2014

Options not exercised at expiration.

Profit and loss calculations:

Option premium received: $(\$3.25 \text{ near-term put premium}) \times 100 \text{ shares} = \325

+ Option premium received for second near-term option: $(\$3.60 \text{ near-term put premium}) \times 100 \text{ shares} = \360

- Option premium paid: $(\$5.25 \text{ long-term put premium}) \times 100 \text{ shares} = -\525

= \$160 profit with no expiration value of the long term put

Result 3

Scenario 1

Stock price at near-term expiration: \$36 in Mar 2013

Options not exercised at expiration.

Profit and loss calculations:

The near-term put option expire worthless, meaning your paper loss would be limited to the initial net debit.

Option premium received: $(\$3.25 \text{ near-term put premium}) \times 100 \text{ shares} = \325

- Option premium paid: $(\$5.25 \text{ long-term put premium}) \times 100 \text{ shares} = -\525

= -\$200 net debit + expiration value of long term put

Scenario 2

Stock price at long-term expiration: \$36 in Jan 2014

Options not exercised at expiration.

Profit and loss calculations:

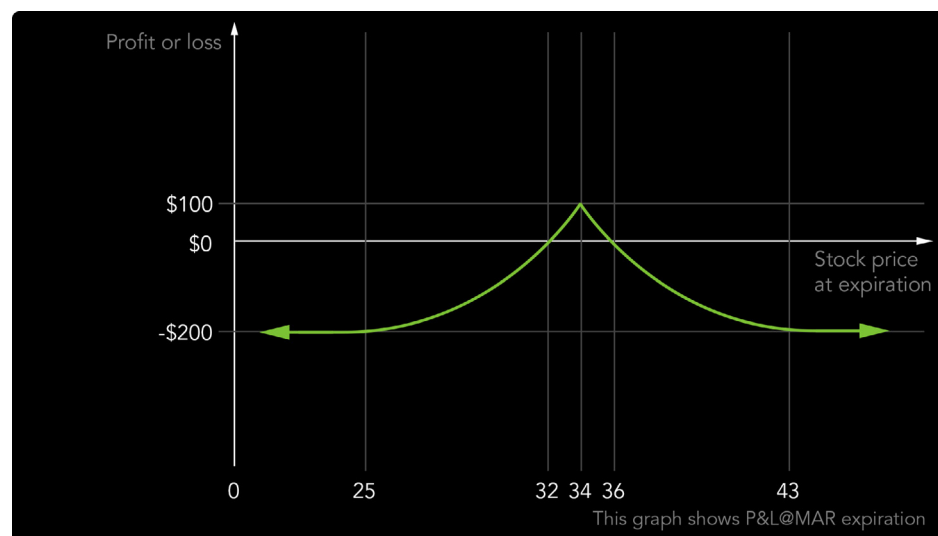
The long-term put option expire worthless, meaning your loss would be limited to the initial net debit.

Option premium received: $(\$3.25 \text{ near-term put premium}) \times 100 \text{ shares} = \325

- Option premium paid: $(\$5.25 \text{ long-term put premium}) \times 100 \text{ shares} = -\525

= -\$200 loss with no expiration value of the long term put

Calendar put payoff diagram



Real-world example

Learn how to set up a [calendar put](#) in IQ, and see it in action.



RISK DISCLOSURE

Transactions in Options carry a high degree of risk. Purchasers and sellers of Options should familiarize themselves with the type of Option (i.e. put or call) which they contemplate trading and the associated risks. You should calculate the extent to which the value of the Options must increase for your position to become profitable, taking into Account the premium and all transaction costs.

The purchaser of Options may offset or exercise the Options or allow the Options to expire. The exercise of an Option results either in a cash settlement or in the purchaser acquiring or delivering the underlying interest. If the Option is on a Future, the purchaser will acquire a Futures position with associated liabilities for Margin (see the section on Futures above). If the purchased Options expire worthless, you will suffer a total loss of your investment which will consist of the Option premium plus transaction costs. If you are contemplating purchasing deep out of the money Options, you should be aware that the chance of such Options becoming profitable ordinarily is remote.

Selling ('writing' or 'granting') an Option generally entails considerably greater risk than purchasing Options.

Although the premium received by the seller is fixed, the seller may sustain a loss well in excess of that amount. The seller will be liable for additional Margin to maintain the position if the market moves unfavourably. The seller will also be exposed to the risk of the purchaser exercising the Option and the seller will be obligated to either settle the Option in cash or to acquire or deliver the underlying interest. If the Option is on a Future, the seller will acquire a position in a Future with associated liabilities for Margin (see the section on Futures above). If the Option is 'covered' by the seller holding a corresponding position in the underlying interest or a Future or another Option, the risk may be reduced. If the Option is not covered, the risk of loss can be unlimited.

Certain exchanges in some jurisdictions permit deferred payment of the Option premium, exposing the purchaser to liability for Margin payments not exceeding the amount of the premium. The purchaser is still subject to the risk of losing the premium and transaction costs. When the Option is exercised or expires, the purchaser is responsible for any unpaid premium outstanding at that time.