



# The Four Basic Options Strategies

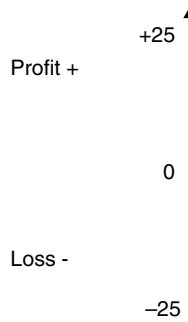
## Introduction

The easiest way to learn options is with pictures so that you can begin to piece together strategies step-by-step. However, first we need to understand the four basic strategies. From that point, logic kicks in, and our learning can progress exponentially.

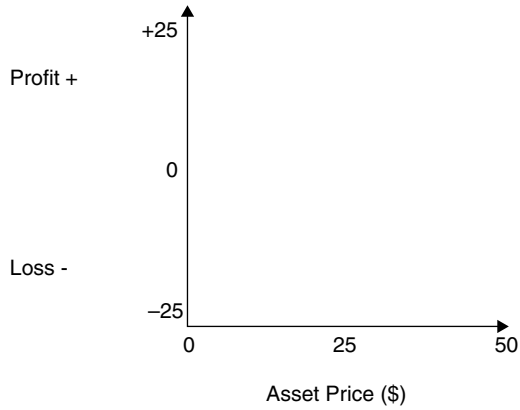
A risk profile chart shows us our profit/loss position for each trade. It differs from a standard price/time chart that we're used to seeing to monitor stock prices.

There are four easy steps to creating a risk profile chart:

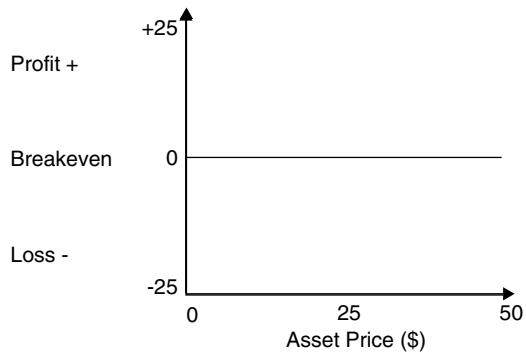
**Step 1:** Y axis for profit/loss position



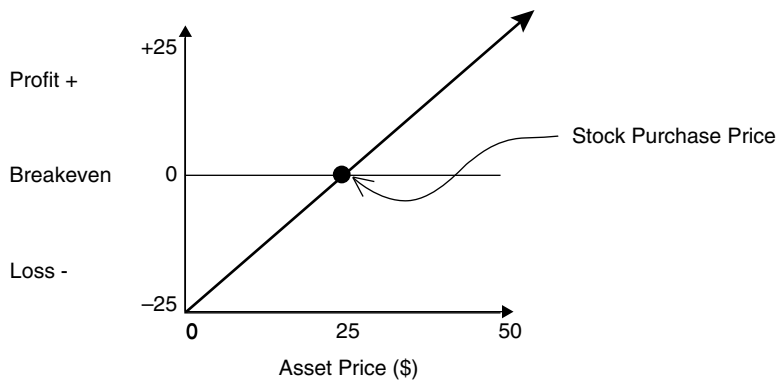
**Step 2:** X axis for underlying asset price range



**Step 3:** Breakeven line

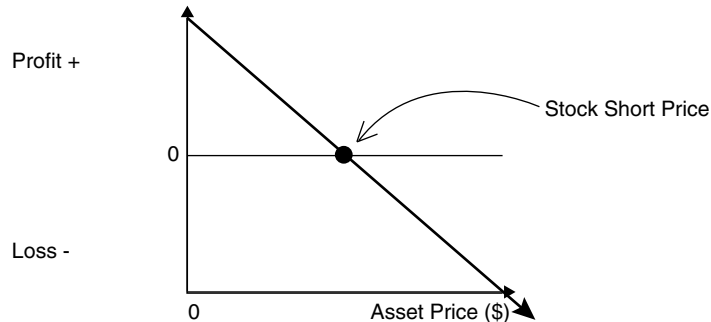


**Step 4:** Risk Profile line



This chart shows our risk profile for a long stock position. As the asset price rises above our purchase price (along the x-axis), we move into profit. Our risk is capped to what we paid, as is our breakeven point, and our potential reward is uncapped.

The reverse position is when we short a stock, in which case the opposite occurs. Here, as the stock price rises above our short price, our short position shows a loss, which can be unlimited as the stock continues to rise. Our risk is uncapped as the stock rises, and our potential reward is the price we shorted at, as is our breakeven point.



Now that we know how to interpret a risk profile chart, we can proceed with analyzing each strategy.

The four basic strategies that underpin your entire options trading knowledge are:

- Long Call
- Short Call
- Long Put
- Short Put

We should already know that owning an option exposes us to time decay, so typically we like to own options with expiration dates that are reasonably far away to give us a chance of our option increasing in value.

With options, we have the “Rule of the Opposites,” where if one thing isn’t true, then the opposite must be true. Therefore, if time decay *hurts* us when we buy options, it must *help* us when we sell options. Because time value decreases (or time decay increases) exponentially during the last month to expiration, we typically don’t like to own options into that last month, but we *do* like to sell options with one month left to expiration.

With these four strategies, we would buy calls and puts with at least three months (or more) left to expiration, thereby looking for the options to increase in value during that time.

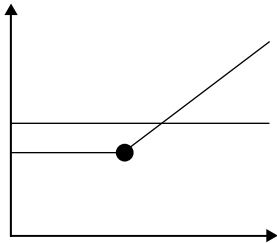
We would short calls and puts with a month or less to expiration, thereby looking for short-term income as the option hopefully expires worthless.

## The Four Basic Options Risk Profiles

Imagine that the dotted lines are mirrors and see how each strategy is the opposite of the one on the other side of the mirror.

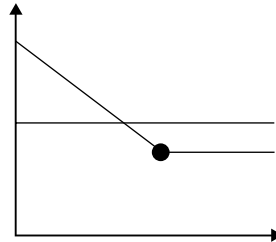
### Buying a Call

- Belief that stock will rise (bullish outlook)
- Risk limited to premium paid
- Unlimited maximum reward



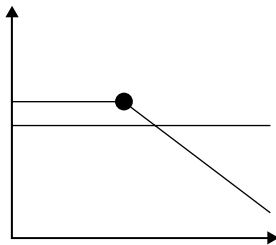
### Buying a Put

- Belief that stock will fall (bearish outlook)
- Risk limited to premium paid
- Unlimited maximum reward up to the strike price less the premium paid



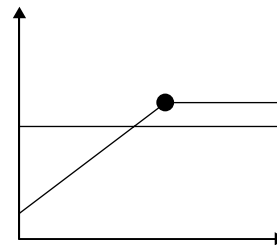
### Writing a Call

- Belief that stock will fall (bearish outlook)
- Maximum reward limited to premium received
- Risk potentially unlimited (as stock price rises)
- Can be combined with another position to limit the risk









### Writing a Put

- Belief that stock will rise (bullish outlook)
- Risk "unlimited" to a maximum equating to the strike price less the premium received
- Maximum reward limited to the premium received
- Can be combined with another position to limit the risk



## 1.1 Long Call

Proficiency	Direction	Volatility	Asset Legs	Max Risk	Max Reward	Strategy Type
		N/A				
Novice	Bullish		Long Call	Capped	Uncapped	Capital Gain

### 1.1.1 Description

Buying a call is the most basic of all option strategies. For many people, it constitutes their first options trade after gaining experience buying and selling stocks.

Calls are easy to understand. A call is an option to buy, so it stands to reason that when you buy a call, you're hoping that the underlying share price will rise.

<b>ITM</b>	In the Money	stock > call strike price
<b>ATM</b>	At the Money	stock = call strike price
<b>OTM</b>	Out of the Money	stock < call strike price



Buy call

### Steps to Trading a Long Call

- Buy the call option.
  - Remember that for option contracts in the U.S., one contract is for 100 shares. So when you see a price of \$1.00 for a call, you will have to pay \$100 for one contract.
  - For S&P Futures options, one contract is exercisable into one futures contract. If the option price is \$1.00, you will pay \$250 for one futures contract upon exercise.

#### Steps In

- Try to ensure that the trend is upward and identify a clear area of support.

#### Steps Out

- Manage your position according to the rules defined in your Trading Plan.
- Sell your long options before the final month before expiration if you want to avoid the effects of time decay.
- If the stock falls below your stop loss, then exit by selling the calls.

### 1.1.2 Context

#### *Outlook*

- With a Long Call, your outlook is **bullish**. You expect a rise in the underlying asset price.

#### *Rationale*

- To make a better return than if you had simply bought the stock itself. Do ensure that you give yourself enough time to be right; this means you should go at least six months out, if not one- or two-year LEAPs. If you think these are expensive, then simply divide the price by the number of months left to expiration and then compare that to shorter-term option prices. You will see that LEAPs and longer-term options are far better value on a per month basis, and they give you more time to be right, thus improving your chances of success. Another method is to buy only shorter-term deep ITM options.

#### *Net Position*

- This is a **net debit** transaction because you pay for the call option.
- Your maximum risk is capped to the price you pay for the call.
- Your maximum reward is uncapped.

#### *Effect of Time Decay*

- Time decay works against your bought option, so give yourself plenty of time to be right.
- Don't be fooled by the false economy that shorter options are cheaper. Compare a one-month option to a 12-month option and divide the longer option price by 12. You will see that you are paying far less per month for the 12-month option.

#### *Appropriate Time Period to Trade*

- At least three months, preferably longer, depending on the particular circumstances.

#### *Selecting the Stock*

- Choose from stocks with adequate liquidity, preferably over 500,000 Average Daily Volume (ADV).
- Try to ensure that the trend is upward and identify a clear area of support.

## Selecting the Option

- Choose options with adequate liquidity; open interest should be at least 100, preferably 500.
- **Strike**—Look for either the ATM or ITM (lower) strike below the current stock.
- **Expiration**—Give yourself enough time to be right; remember that time decay accelerates exponentially in the last month before expiration, so give yourself a minimum of three months to be right, knowing you'll never hold into the last month. That gives you at least two months before you'll need to sell. Longer would be better, though.

### 1.1.3 Risk Profile

- **Maximum Risk** [Call premium]
- **Maximum Reward** [Uncapped]
- **Breakeven** [Call strike + call premium]

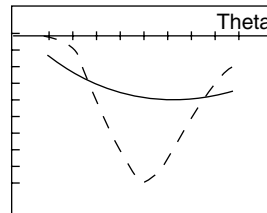
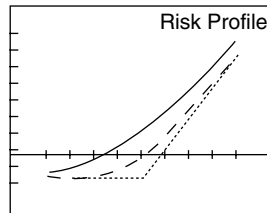
### 1.1.4 Greeks

#### Key:

Expiration .....  
 Today – 6 months ———  
 Time(t) – 1 month - - -

#### Risk Profile

As the stock price rises, the long call moves into profit more and more quickly, particularly when the stock price is greater than the strike price.

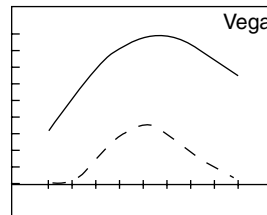
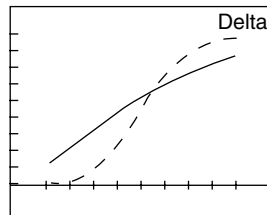


#### Theta

Theta is negative, illustrating that time decay hurts the long call position.

#### Delta

Delta (speed) is positive and increases at its fastest rate around the strike price, until it reaches 1. Notice how Delta is zero when the option is deep OTM.

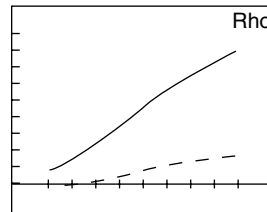
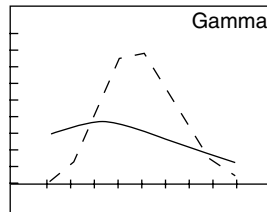


#### Vega

Vega is positive, illustrating that volatility is helpful to the position because higher volatility translates into higher option values.

#### Gamma

Gamma (acceleration) is always positive with a long call, and it peaks when Delta is at its fastest (steepest) rate.



#### Rho

Rho is positive, illustrating that higher interest rates would increase the value of the calls and therefore help the position.

### 1.1.5 Advantages and Disadvantages

#### *Advantages*

- Cheaper than buying the stock outright.
- Far greater leverage than simply owning the stock.
- Uncapped profit potential with capped risk.

#### *Disadvantages*

- Potential 100% loss if the strike price, expiration dates, and stock are badly chosen.
- High leverage can be dangerous if the stock price moves against you.

### 1.1.6 Exiting the Trade

#### *Exiting the Position*

- Sell the calls you bought!

#### *Mitigating a Loss*

- Use the underlying asset or stock to determine where your stop loss should be placed.

### 1.1.7 Example

ABCD is trading at \$28.88 on February 19, 2004.

Buy the January 2005 \$27.50 strike call for \$4.38.







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<b>You Pay</b>	Call premium <b>\$4.38</b>
<b>Maximum Risk</b>	Call premium <b>\$4.38</b> Maximum risk is 100% of our total cost here
<b>Maximum Reward</b>	Unlimited as the stock price rises
<b>Breakeven</b>	Strike price + call premium <b>\$27.50 + \$4.38 = \$31.88</b>

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## 1.2 Short (Naked) Call

Proficiency	Direction	Volatility	Asset Legs	Max Risk	Max Reward	Strategy Type
		N/A				
Advanced	Bearish		Short Call	Uncapped	Capped	Income

### 1.2.1 Description

Although simple to execute, shorting a call (without any form of cover) is a risky strategy, hence its categorization as an advanced strategy. A Short Call exposes us to uncapped risk if the stock rises meteorically, and brokers will only allow experienced options traders to trade the strategy in the first place.

A call is an option to buy, so it stands to reason that when you buy a call, you're hoping that the underlying share price will rise. If you're selling or shorting a call, it's therefore logical that you'd want the stock to do the opposite—fall.



Sell call

### Steps to Trading a Short Call

1. Sell the call option with a strike price higher than the current stock price.
  - Remember that for option contracts in the U.S., one contract is for 100 shares. So when you see a price of \$1.00 for a call, you will receive \$100 for one contract.

#### *Steps In*

- Try to ensure that the trend is downward or rangebound and identify a clear area of resistance.

#### *Steps Out*

- Manage your position according to the rules defined in your Trading Plan.
- Hopefully the stock will decline or remain static, allowing your sold option to expire worthless so you can keep the entire premium.
- If the stock rises above your stop loss, then exit the position by buying back the calls.
- Time decay will be eroding the value of your call every day, so all other things being equal, the call you sold will be declining in value every day, allowing you to buy it back for less than you bought it for, unless the underlying stock has risen of course.

## 1.2.2 Context

### *Outlook*

- **Bearish**—You are expecting a **fall** in the stock price; you are certainly **not** expecting a rise in the stock.

### *Rationale*

- To pick up short-term premium income as the stock develops price weakness.

### *Net Position*

- This is a **net credit** transaction because you are receiving a premium for the call.
- Your maximum risk is uncapped.
- Your maximum reward is capped to the price you receive for the call.

### *Effect of Time Decay*

- Time decay is helpful to your naked sold option, so take advantage of the maximum time erosion. Maximum time decay (or theta decay) occurs in the last month before the option's expiration, so it makes sense to sell one-month or less options only.
- Don't be fooled by the false economy that selling longer options would be more lucrative. Compare a one-month option to a 12-month option and multiply the shorter option price by 12. You will see that you are receiving far more per month for the one-month option. Also remember that you want the person on the long side of this trade to have as short a time as possible to be right.
- Give yourself as little time as possible to be wrong because your maximum risk is uncapped.

### *Appropriate Time Period to Trade*

- One month or less.

### *Selecting the Stock*

- Choose from stocks with adequate liquidity, preferably over 500,000 Average Daily Volume (ADV).
- Try to ensure that the trend is downward and identify a clear area of resistance.

### Selecting the Option

- Choose options with adequate liquidity; open interest should be at least 100, preferably 500.
- **Strike**—Look for OTM strikes above the current stock price.
- **Expiration**—Give yourself as little time to be wrong. Remember that your short position exposes you to uncapped risk, and that time decay accelerates exponentially (in your favor when you're short) in the last month before expiration, so only short the option with a maximum of one month to expiration, preferably less.

### 1.2.3 Risk Profile

- **Maximum Risk** [Uncapped]
- **Maximum Reward** [Call premium]
- **Breakeven** [Call strike + call premium]

### 1.2.4 Greeks

#### Risk Profile

As the stock price rises, the short call loses money more and more quickly, particularly when the stock price is greater than the strike price.

#### Delta

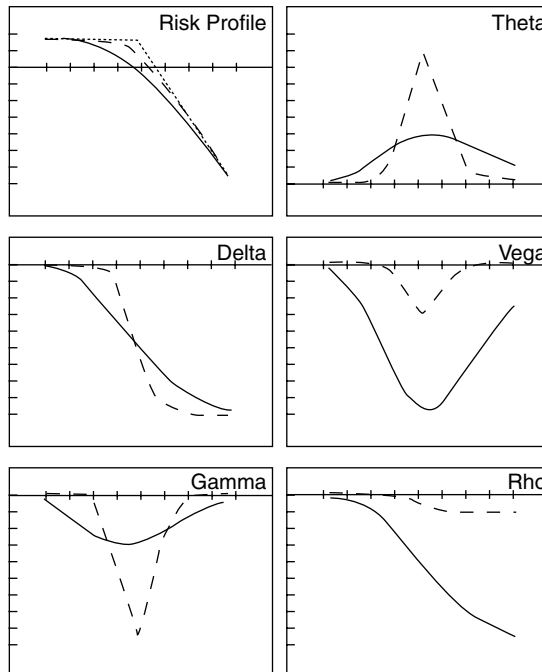
Delta (speed) is negative and moves at its fastest (negative) rate around the strike price, until it reaches -1. Notice how Delta is zero when the option is deep.

#### Gamma

Gamma (acceleration) is always negative with a Short Call, and it peaks inversely when Delta is at its fastest (steepest) rate. Gamma is zero when the position is deep OTM or ITM (i.e., when Delta isn't moving).

Key:

Expiration .....  
 Today - 6 months ———  
 Time(t) - 1 month - - -



#### Theta

Theta is positive, illustrating that time decay helps the short call position. As an option seller, this is of course completely logical.

#### Vega

Vega is negative, illustrating that volatility is unhelpful to the position because higher volatility translates into higher option values. As the seller of option premium, we'd rather the option value decreases.

#### Rho

Rho is negative, illustrating that higher interest rates would harm the Short Call position.

## 1.2.5 Advantages and Disadvantages

### Advantages

- If done correctly, you can profit from falling or rangebound stocks in this way.
- This is another type of income strategy.

### Disadvantages

- Uncapped risk potential if the stock rises.
- A risky strategy that is difficult to recommend on its own.

## 1.2.6 Exiting the Trade

### Exiting the Position

- Buy back the options you sold or wait for the sold option to expire worthless (if the underlying stock falls and stays below the strike price) so that you can keep the entire premium.

### Mitigating a Loss

- Use the underlying asset or stock to determine where your stop loss should be placed.







## 1.2.7 Example

ABCD is trading at \$28.20 on February 19, 2004.

Sell the March 2004 \$30.00 strike call for \$0.90.

<b>You Receive</b>	Call premium <b>\$0.90</b>
<b>Maximum Risk</b>	Uncapped
<b>Maximum Reward</b>	Call premium <b>\$0.90</b>
<b>Breakeven</b>	Strike price + call premium <b>\$30.00 + \$0.90 = \$30.90</b>

## 1.3 Long Put

Proficiency	Direction	Volatility	Asset Legs	Max Risk	Max Reward	Strategy Type
		N/A				
Novice	Bearish		Long Put	Capped	Uncapped	Capital Gain

### 1.3.1 Description

Buying a put is the opposite of buying a call. A put is an option to sell. When you buy a put, your outlook is bearish.

ITM	In the Money	stock < put strike price
ATM	At the Money	stock = put strike price
OTM	Out of the Money	stock > put strike price



Buy put

#### Steps to Trading a Long Put

- Buy the put option.
  - Remember that for option contracts in the U.S., one contract is for 100 shares. So when you see a price of \$1.00 for a put, you will have to pay \$100 for one contract.
  - For S&P Futures options, one contract is exercisable into one futures contract. If the option price is \$1.00, you will pay \$250 for one futures contract upon exercise.

##### Steps In

- Try to ensure that the trend is downward and identify a clear area of resistance.

##### Steps Out

- Manage your position according to the rules defined in your Trading Plan.
- Sell your long options before the final month before expiration if you want to avoid the effects of time decay.
- If the stock rises above your stop loss, then exit by selling the puts.

### 1.3.2 Context

#### Outlook

- With a Long Put, your outlook is **bearish**. You expect a fall in the underlying asset price.

#### Rationale

- To make a better return than if you had simply sold short the stock itself. Do ensure that you give yourself enough time to be right; this means you should go at least six months out, if not one or two year LEAPs. If you think these are

expensive, then simply divide the price by the number of months left to expiration and then compare that to shorter-term put prices. You will see that LEAPs and longer-term options are far better value per month, and they give you more time to be right, thus improving your chances of success. Another method is to buy only deep ITM options.

### *Net Position*

- This is a **net debit** transaction because you pay for the put option.
- Your maximum risk is capped to the price you pay for the put.
- Your maximum reward is uncapped until the stock falls to zero, whereupon the maximum profit is the strike price less what you paid for the put.

### *Effect of Time Decay*

- Time decay works against your bought option, so give yourself plenty of time to be right.
- Don't be fooled by the false economy that shorter options are cheaper. Compare a one-month option to a 12-month option and divide the longer option price by 12. You will see that you are paying far less per month for the 12-month option.

### *Appropriate Time Period to Trade*

- At least three months, preferably longer depending on the particular circumstances.

### *Selecting the Stock*

- Choose from stocks with adequate liquidity, preferably over 500,000 Average Daily Volume (ADV).
- Try to ensure that the trend is downward and identify a clear area of resistance.

### *Selecting the Option*

- Choose options with adequate liquidity; open interest should be at least 100, preferably 500.
- **Strike**—Look for either the ATM or ITM (higher) strike above the current stock.
- **Expiration**—Give yourself enough time to be right; remember that time decay accelerates exponentially in the last month before expiration, so give yourself a minimum of three months to be right, knowing you'll never hold into the last month. That gives you at least two months before you'll need to sell. Longer would be better, though.

### 1.3.3 Risk Profile

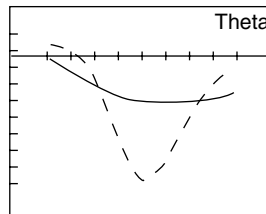
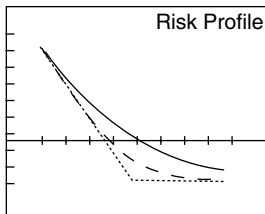
- **Maximum Risk** [Put premium]
- **Maximum Reward** [Put strike – put premium]
- **Breakeven** [Put strike – put premium]

### 1.3.4 Greeks

Key:  
 Expiration .....  
 Today – 6 months ———  
 Time(t) – 1 month - - - -

**Risk Profile**

As the stock price falls, the long put moves into profit more and more quickly, particularly when the stock price is lower than the strike price.

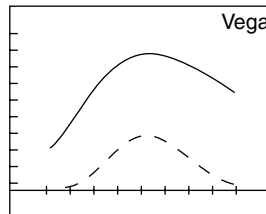
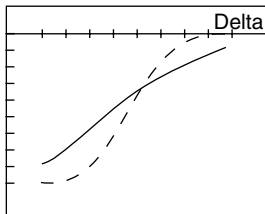


**Theta**

Theta is negative, illustrating that time decay hurts the long put position.

**Delta**

Delta (speed) is negative and moves at its fastest rate around the strike price, until it reaches -1. Notice how Delta is zero when the option is deep OTM.

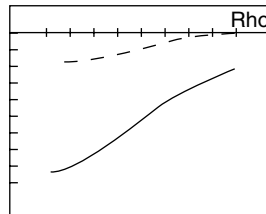
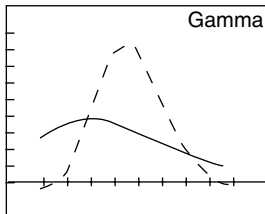


**Vega**

Vega is positive, illustrating that volatility is helpful to the position because higher volatility translates into higher option values.

**Gamma**

Gamma (acceleration) is always positive with a long put, and it peaks when Delta is at its fastest (steepest) rate.



**Rho**

Rho is negative, illustrating that higher interest rates would reduce the value of the puts and therefore hurt the position.

### 1.3.5 Advantages and Disadvantages

**Advantages**

- Profit from declining stock prices.
- Far greater leverage than simply shorting the stock.
- Uncapped profit potential with capped risk.

### Disadvantages

- Potential 100% loss if the strike price, expiration dates, and stock are badly chosen.
- High leverage can be dangerous if the stock price moves against you.

### 1.3.6 Exiting the Trade

#### Exiting the Position

- Sell the puts you bought!

#### Mitigating a Loss

- Use the underlying asset or stock to determine where your stop loss should be placed.







### 1.3.7 Example

ABCD is trading at \$28.88 on February 19, 2004.

Buy the January 2005 \$30.00 strike put for \$4.38.

<b>You Pay</b>	Put premium <b>\$4.38</b>
<b>Maximum Risk</b>	Put premium <b>\$4.38</b> Maximum risk is 100% of our total cost here
<b>Maximum Reward</b>	Strike price – put premium <b>\$30.00 – \$4.38 = \$25.62</b>
<b>Breakeven</b>	Strike price – put premium <b>\$30.00 – \$4.38 = \$25.62</b>

## 1.4 Short (Naked) Put

Proficiency	Direction	Volatility	Asset Legs	Max Risk	Max Reward	Strategy Type
		N/A				
Intermediate	Bullish		Short Put	Capped*	Capped	Income

\*Risk uncapped until the stock falls to zero.

### 1.4.1 Description

Selling a put is a simple, short-term income strategy. A put is an option to sell. When you sell a put, you have sold someone the right to sell. As the stock falls, you may be obligated to buy the stock if you are exercised. Therefore, only sell puts Out of the



Money and on stocks you'd love to own at the strike price (which is lower than the current stock price).

The maximum risk of a naked call is the strike price less the premium you receive. Some people consider this to be an unlimited risk profile, and others consider it to be limited risk. A compromise is to consider it unlimited until the stock falls to zero—in other words, unlimited until the stock falls to zero.



Sell put

### Steps to Trading a Naked Put

1. Sell the put option with a strike price lower than the current stock price.
  - Remember that for option contracts in the U.S., one contract is for 100 shares. So when you see a price of \$1.00 for a put, you will receive \$100 for one contract.
  - For S&P Futures options, one contract is exercisable into one futures contract. If the option price is \$1.00, you will pay \$250 for one futures contract upon exercise.

#### *Steps In*

- Try to ensure that the trend is upward (or sideways) and identify a clear area of support.

#### *Steps Out*

- Manage your position according to the rules defined in your Trading Plan.
- Hopefully the stock will rise or remain static, allowing your sold option to expire worthless so that you can keep the entire premium.
- If the stock falls below your stop loss, then exit the position by buying back the puts.
- Time decay will be eroding the value of your put every day, so all other things being equal, the put you sold will be declining in price every day, allowing you to buy it back for less than you bought it for, unless the underlying stock has fallen of course.

## 1.4.2 Context

### *Outlook*

- **Bullish**—You are expecting the stock to rise or stay sideways at a minimum.

### *Rationale*

- To pick up short-term premium income as the share develops price strength.
- To lower the cost basis of buying a share (if the put is exercised).

### *Net Position*

- This is a **net credit** transaction because you receive a premium for selling the put.
- Your maximum risk is the put strike price less the premium you receive for the put. This is considered a high-risk strategy.
- Your maximum reward is limited to the premium you receive for the option.

### *Effect of Time Decay*

- Time decay works with your naked sold option. To take advantage of the maximum rate of time decay, sell the put in the last month before the option's expiration.
- Don't be fooled by the false economy that options with longer to expiration are more lucrative. Compare a one-month option to a 12-month option and multiply the shorter option price by 12. You will see that you are receiving far more per month for the one-month option.

### *Appropriate Time Period to Trade*

- One month or less.

### *Selecting the Stock*

- Choose from stocks with adequate liquidity, preferably over 500,000 Average Daily Volume (ADV).
- Try to ensure that the trend is upward and identify a clear area of support.

### *Selecting the Option*

- Choose options with adequate liquidity; open interest should be at least 100, preferably 500.
- **Strike**—Look for OTM (lower strike) options, below the current stock price.
- **Expiration**—Give yourself as little time to be wrong; remember that your short position exposes you to uncapped risk (until the stock falls to zero) and that time decay accelerates exponentially (in your favor when you're short) in the last month before expiration, so only short the option with a maximum of one month to expiration, preferably less.

### 1.4.3 Risk Profile

- **Maximum Risk** [Put strike – put premium]
- **Maximum Reward** [Put premium]
- **Breakeven** [Put strike – put premium]

## 1.4.4 Greeks

### Key:

Expiration .....  
 Today – 6 months ———  
 Time(t) – 1 month - - -

### Risk Profile

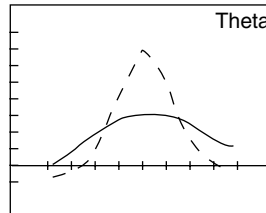
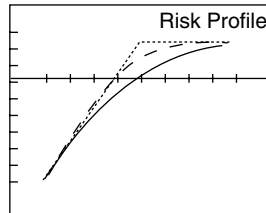
As the stock price falls, the naked put moves into loss more and more quickly, particularly when the stock price is lower than the strike price.

### Delta

Delta (speed) is positive and falls to zero after the position reaches its maximum profit potential after the stock has risen above the strike price.

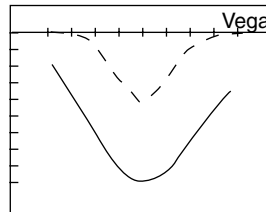
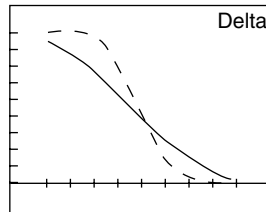
### Gamma

Gamma (acceleration) is always negative with a naked put (because you are net seller of options), and it peaks inversely when Delta is at its fastest (steepest) rate, which is when the position is ATM.



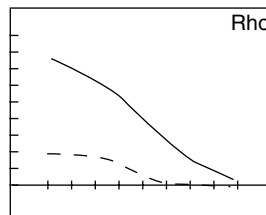
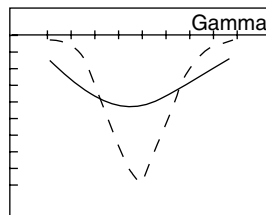
### Theta

Theta is positive, illustrating that time decay helps the naked put position.



### Vega

Vega is negative, illustrating that volatility is harmful to the position because higher volatility translates into higher option values.



### Rho

Rho is positive, illustrating that higher interest rates would help the naked put position.

## 1.4.5 Advantages and Disadvantages

### Advantages

- If done correctly, you can use Naked Puts to gain a regular income from rising or rebound stocks.
- The Naked Put is an alternative way of buying a stock at a cheaper price than in the current market. This is because if you're exercised, you're obligated to buy stock at the low strike price, having already received a premium for selling the puts in the first place.

### Disadvantages

- Naked Puts expose you to uncapped risk (as the stock falls to zero) if the stock falls.
- Not a strategy for the inexperienced. You must only use this strategy on stocks you'd love to own at the put strike price you're selling at. The problem is that if

you were to be exercised, you'd be buying a stock that is falling. The way to avoid this is to position the put strike around an area of strong support within the context of a rising trend. A Fibonacci retracement point would be the type of area you'd use to position your naked put strike . . . well below the current stock price.

### 1.4.6 Exiting the Trade

#### *Exiting the Position*

- Buy back the options you sold or wait for the sold put to expire worthless so that you can keep the entire premium.

#### *Mitigating a Loss*

- Use the underlying asset or stock to determine where your stop loss should be placed.

### 1.4.7 Example

ABCD is trading at \$27.35 on May 12, 2004.

Sell the June 2004 \$25.00 strike put for \$1.05.

<b>You Receive</b>	Put premium <b>\$1.05</b>
<b>Maximum Risk</b>	Strike price – put premium <b>\$25.00 – \$1.05 = \$23.95</b>
<b>Maximum Reward</b>	Put premium <b>\$1.05</b>
<b>Breakeven</b>	Strike price – put premium <b>\$25.00 – \$1.05 = \$23.95</b>
<b>Return on Risk</b>	4.38%
<b>Cushion (from Breakeven)</b>	\$3.40 or 12.43%