



MicroDog Trading

REAL TRADER EDUCATION

Module 01

Option Basics – Calls

With anything in life that we want to learn about, we need to start with the basics.

In other words, we need to learn to crawl, then to walk, then to run – and finally become a master and run marathons – you get the idea.

If you have already traded Options, then this **Module** may seem a bit redundant. We suggest you go through it anyway, in case there is something you might have missed.

It never hurts to go back to the fundamentals. Going forward, we will always monitor and evaluate the 3 R's...

Risk | Reward | Return (ROI).

Terms and Definitions for this Module...

Term	Definition
Option Broker	A stock broker that specializes in executing trades in the Option Market. They have knowledge of Options and a better understanding of the risks involved.
Call Option	A contract between the Option Buyer and Option Seller, that gives the buyer (of the contract) the right, but not the obligation to buy a specific stock (instrument) at a specific price on or before a specific date in exchange for a market premium.
Put Option	A contract between the Option Buyer and Option Seller, that gives the buyer (of the contract) the right, but not the obligation to sell a specific stock (instrument) at a specific price on or before a specific date in exchange for a market premium.
Strike Price	The price you will buy or sell the underlying security if the Option Contract is exercised by its owner or assigned by its seller (the writer of the option).
Premium	Another word for the purchase price of the Option.
Expiration Date	The date the Option Contract expires. For standard monthly options it is the third Friday of the Option Month. For weekly options, it is Friday of the Option Week.
Symbol	Also known as the Stock Symbol, Ticker or Ticker Symbol. It is the security's code name used by the Exchange to identify each individual tradeable security. Example, the Symbol for Microsoft Corp. is MSFT.
Standard Block	A term used to identify the quantity of shares commonly traded. In the U.S. markets, a Standard Block is 100 shares. This is also the quantity of shares controlled by a Standard Option Contract.
Long Position	When buying a security (Stock, Index, Futures Contract, Option Contract, etc.) to open a new position, you are "Long" and you own the instrument.
Risk Graph	A visual representation of an investment showing potential loss (Risk) and potential profit (Reward) relative to the underlying security's current price.
Break-Even(s)	The price level of the underlying security is when the position is at its Break-Even point – no gain / no loss.
Return on Investment (ROI)	A value of percentage return on the amount invested. Calculated as: $\text{Return (Profit or Loss)} / \text{Investment} = \text{ROI}$. Example: The investment cost is \$300. The profit made on the investment is \$150. The ROI is $150 / 300 = .50$ or a 50% ROI.
Max Risk	The maximum amount of potential financial loss (Risk) in the position.
Max Reward	The maximum amount of potential financial profit (Reward) in the position.

There are two types of **Options**, the **Call Option** and the **Put Option**. They work exactly the same but in the opposite direction of price movement. Financial **Options** did not exist until the early 1970's because no one had a way to determine how they should be priced. It took some **Nobel Prize** winning mathematicians to come up with the formulas necessary to establish a pricing model so traders could understand how to value them. There are now multiple pricing models in play. You don't have to understand the pricing math, just understand that **Options** are bought and sold every day in the markets.

It's the same as any other investment, you want to buy low and sell high. If it cost \$1.00 today and you think the price will rise in the future, you spend \$1.00 in hopes to sell it later for more than you paid, thus making a profit.

How an **Option** is valued is primarily determined by the price movement of the underlying instrument (**Stock, Index, Exchange Traded Fund (ETF), Futures Contract**, etc.). Each **Option** is tied to an underlying instrument. The **Option's** price is derived from the price (or value) of its

underlying asset, so **Options** are also known as “**Derivatives**”. They are traded on **Exchanges** just like **Stock** (or other financial instruments). They are “**Standardized**” which means you can buy on one **Exchange** and sell on another because they are recognized the same on any of the **Exchanges**. Your **Option Broker** will handle all of those details. Also, your **Broker** will require that you obtain a copy of the “**Characteristics and Risks of Standardized Options**” publication which explains how they work. The PDF document can be downloaded for free from the Option Clearing Corp. (OCC) website by using this link:

<https://www.theocc.com/components/docs/riskstoc.pdf>

Call Option Definition

*“A contract between the **Option Buyer** and **Option Seller**, that gives the **Buyer** (of the contract) the **right**, but not the obligation to **buy a specific stock** (instrument) at a specific price on or before a specific date in exchange for a market premium.”*

The CALL Option

Here is a much simpler way to understand the Call Option:

The Right to BUY the Stock

A **Call Option** is similar to purchasing a home. You agree on the purchase price (the **Strike Price**), enter into a **Contract** and pay out some cash in the form of Earnest Money (the **Premium**). The contract will have a date that you will have to complete the transaction by (the **Expiration Date**).



Purchase and Sale Agreement	
Entry Date:	April 15, 2020
Between Parties - Seller:	John B. Seller
and - Buyer:	Debbie L. Buyer
Purchase Price:	\$250,000
Closing Date:	On or before June 15, 2020
Earnest Money Deposit:	\$12,500

Entry Date: The date you initiate the Contract.

Parties – Seller: The person selling the house.

Parties – Buyer: The person buying the house.

Purchase Price: The agreed total purchase price of the house.

Closing Date: The length (or term) of the contract – the date the contract expires.

Earnest Money Deposit: The cash amount paid by the Buyer to secure the contract.

Explanation:

For the next 60 days, the **Buyer** has the right to purchase the house for the agreed price of \$250,000. The **Seller** is obligated to sell the house at \$250,000. The **Buyer** and **Seller** have struck up a deal at \$250,000 – the “**Strike Price**”.

The **Buyer has the Right** (not the obligation) to buy the house. Should the **Buyer** decide not **Exercise** the **Option** i.e. not purchase the house, she forfeits the money she paid for the **Contract** with the **Seller**; the **Contract Expires** and the **Seller** keeps the \$12,500. You can refer to this as the “**Premium**” paid.

What if in the next 60 days, the value of the house was to go up to \$300,000 – could the **Seller** charge more money? The answer is no because he entered a **Contract** to sell the house at \$250,000. The **Seller is obligated** to sell at the **Strike Price** during the life of the **Contract**, until June 15, 2020 (the “**Expiration Date**”).

Now let’s look at a Stock example using Microsoft:

Let’s say you are interested in Microsoft and think its share price will go up in the next three months. Every tradeable financial instrument has a “**Symbol**” that is used to identify it – also known as the **Stock’s Ticker Symbol**. The **Stock Symbol** for Microsoft is **MSFT**. We will compare buying the **Stock** itself with buying a **Call Option** instead. First, let’s look at buying the **Stock**. We will use 100 shares in this example because most **Standardized Options** control a “**100 share block**” of **Stock**.

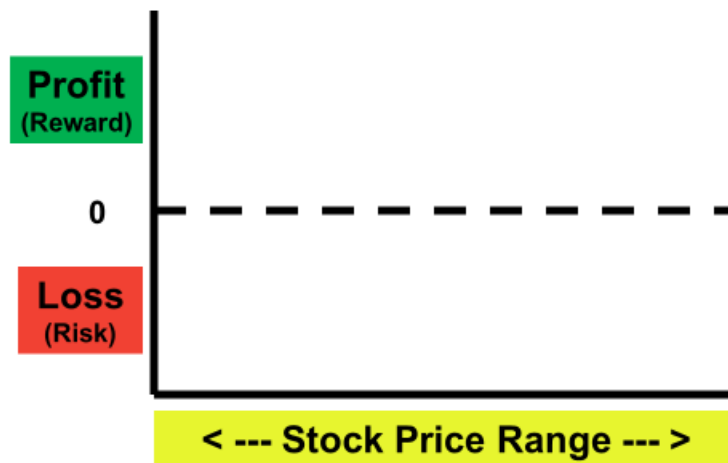
Here is a chart of the stock at the end of 2019...



To buy a **“Standard Block”** of the **Stock** (100 shares) at its current price, it would cost \$15,770. (157.70 per share X 100 shares = \$15,770). This position is referred to as **Going Long the Stock**. You are **Buying to Open (BTO)** a position hoping the share price will increase over time and sell it later at a higher price, thus making a profit. You are **Bullish** on the **Stock**, which means you make money if the **Stock** price increases.

At this point, we want to introduce you to the concept of a **“Risk Graph”**. With ANY Investment or Trade, there has to be **Risk** for there to be any **Reward**. Using the template below, we create a visual representation or “picture” of the position showing the most important aspect, the potential **Risk** (Loss) in the trade. The graph will also show the potential **Reward** (Profit) along with your directional bias – are you **Bullish** or **Bearish** on the **Stock**.

Risk Graph Template



Risk Graph Template

Profit Zone (Reward)

Profit (Reward)

Break Even Point

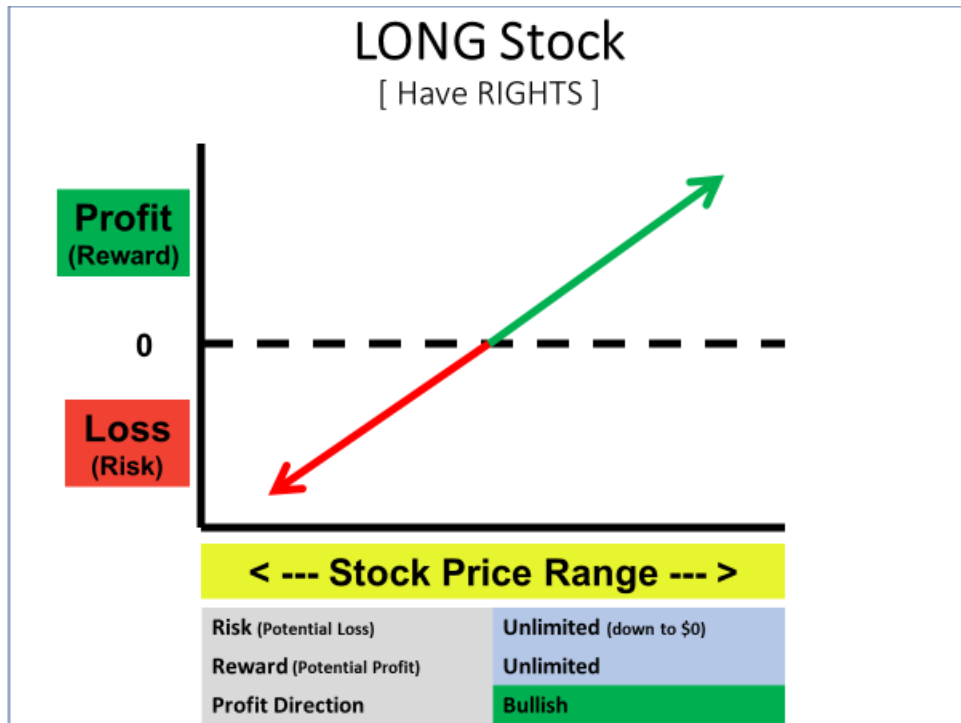
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Loss Zone (Risk)

Loss (Risk)

< --- Stock Price Range --- >

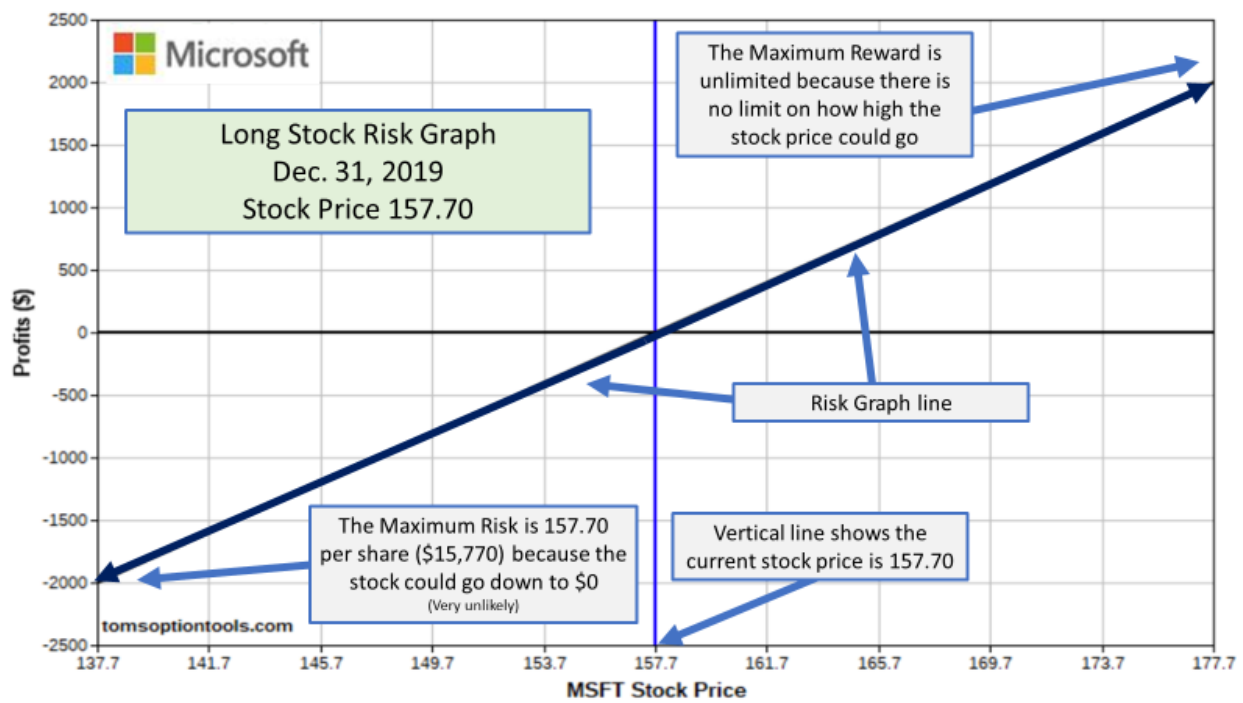
Draw Graph on template here.



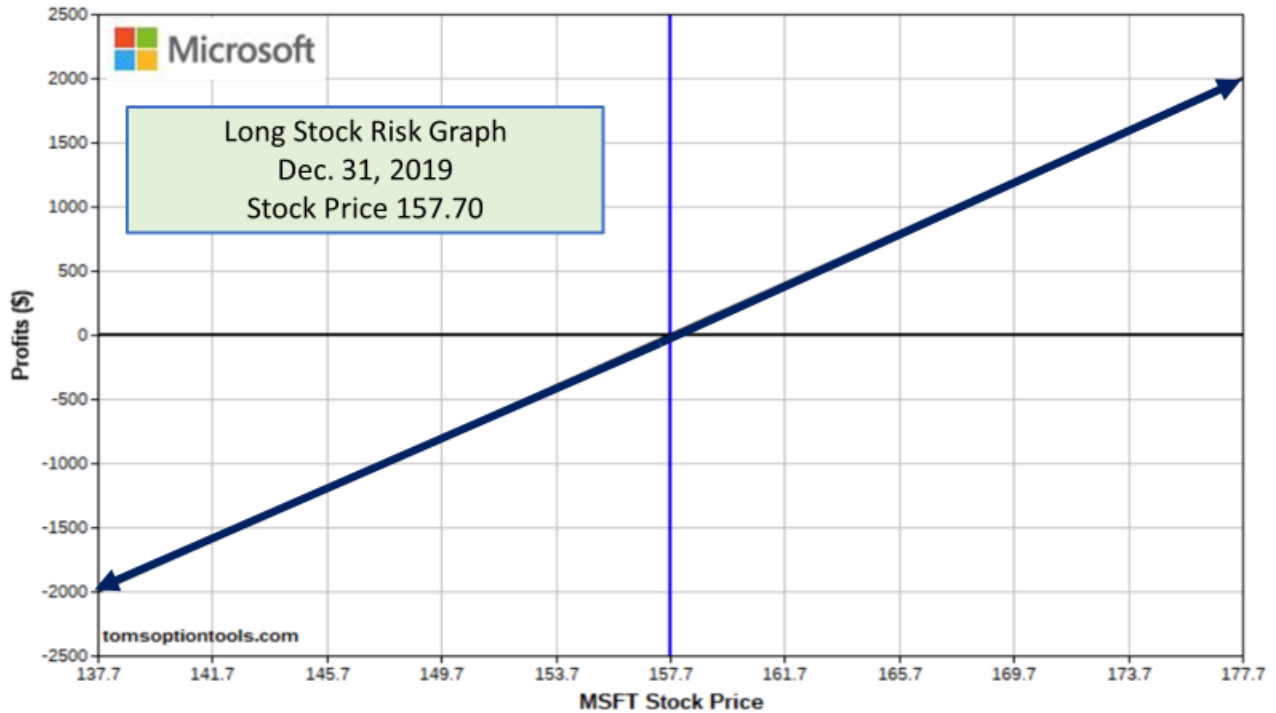
For more details on **Risk Graphs**, see **Module 3** “The Six Basic Risk Graphs” where we go into them in depth. Now let’s create a **Risk Graph** for buying the **Stock** and compare it to buying the **Call Option**.

Choice #1 – Buy 100 shares at 157.70 per share:

Quantity	Price per Share	Total Cost	Required Cash
100	157.70	15,770	\$ 15,770



Here is the same Risk Graph without the notes:



Note that when you initiate the position, you are at a **Break Even** because the current **Stock** price is the price you just paid for it. Should the **Stock** begin moving up in price, you begin to show profit. On the other hand, should the **Stock** move down in price, you begin to show a loss.

Choice #2 – Buy 1 Apr2020 160 Call Option for \$5.75 per share (\$575 total cost).

[The right to buy 100 shares of MSFT at \$160 per share up to April 17, 2020]:

Quantity	Price	Total Cost	Required Cash
1	5.75	575.00	\$ 575



Standardized Option Contract	
Entry Date:	Dec. 31, 2019
Between Parties - Seller:	Option Market
and - Buyer:	Debbie L. Buyer
Strike Price:	\$160
Option Expiration Date:	April 17, 2020
Option Cost (Premium):	\$575 (5.75 x 100 shares)

Entry Date: The date you purchase the Option Contract.

Parties – Seller: A Private Party, or a Market Maker on any Option Exchange – your Broker handles this.

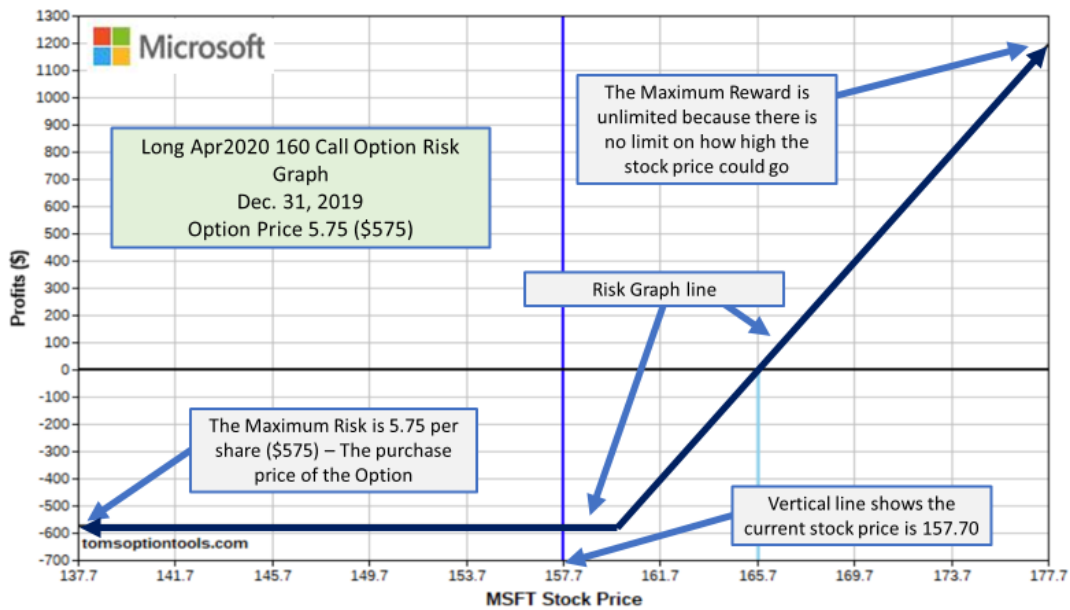
Parties – Buyer: You (Debbie L, Buyer), the person buying the Option.

Strike Price: The share price of the **Stock** that you have the Right to buy it at.

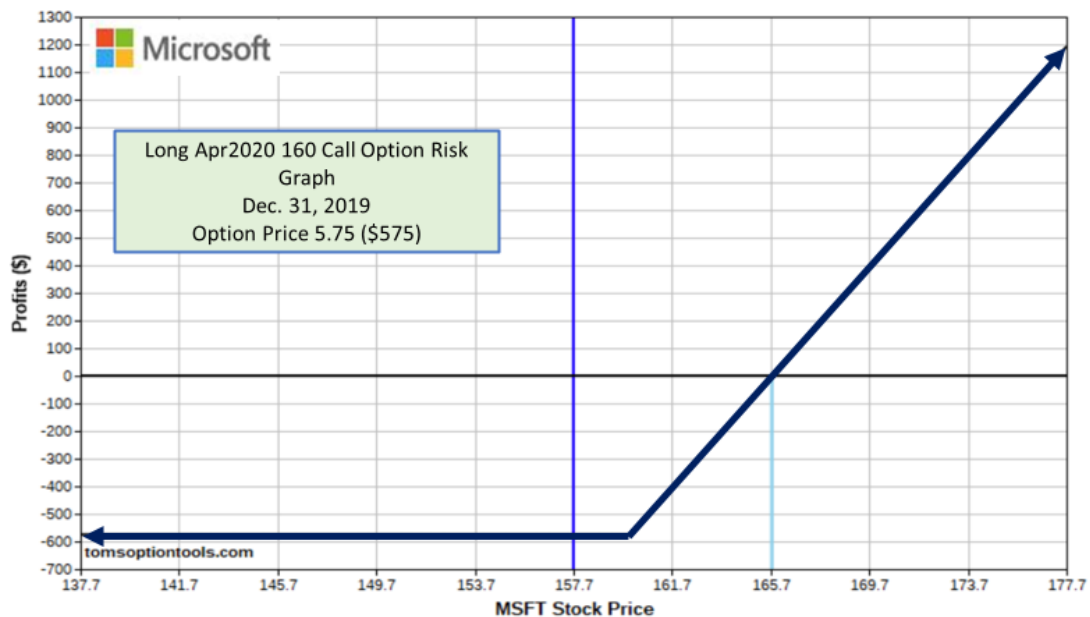
Option Expiration Date: Date the **Option** expires.

Option Cost: The cash amount paid by the Buyer (you) to buy the **Option Contract**.

Risk Graph:



Here is the same Risk Graph without the notes:

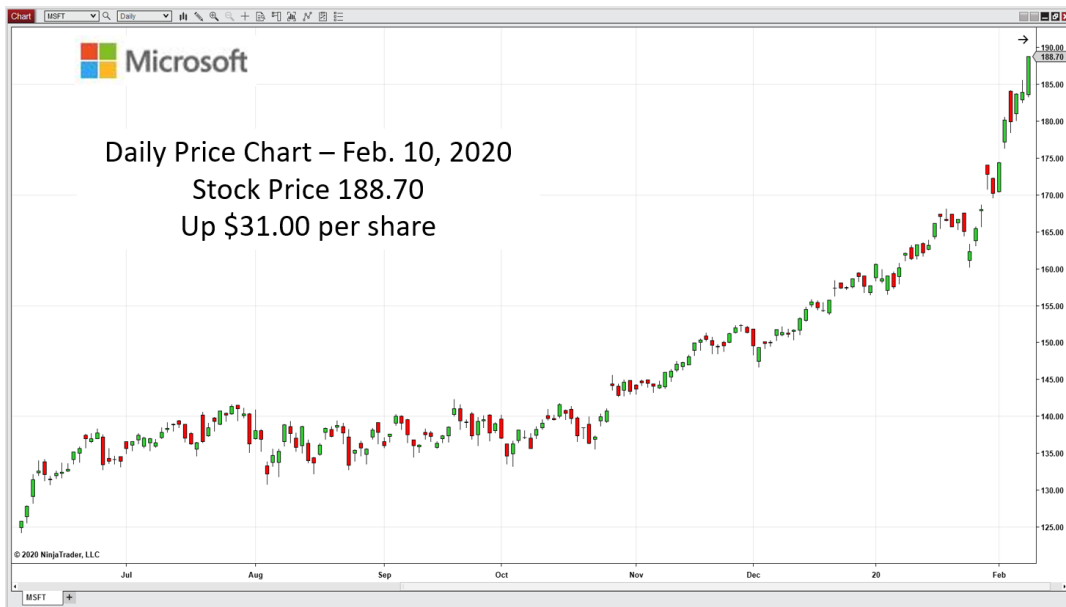


Comparison

Instrument	Quantity	Price	Total Cost	Required Cash
Stock	100	157.70	15,770	\$ 15,770
Call Option	1	5.75	575	\$ 575

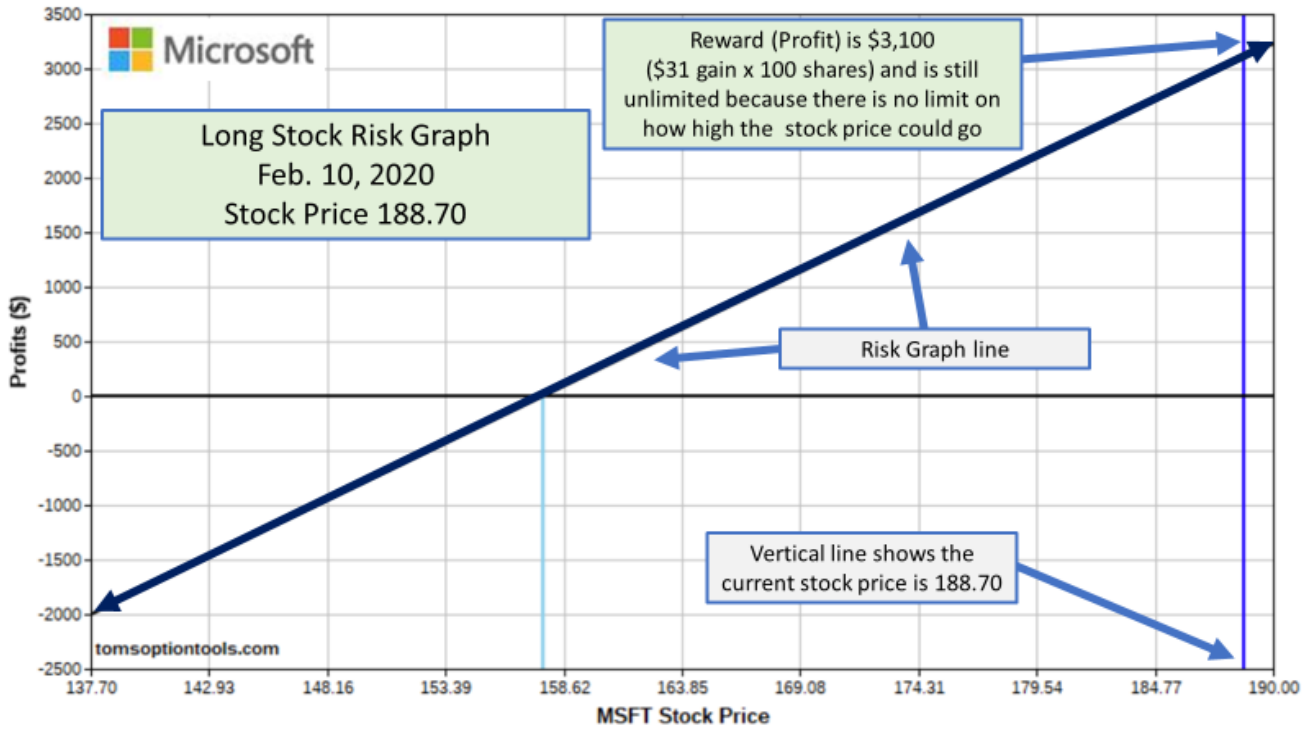
As you can see, the amount of capital required is substantially different between buying the **Stock** and taking out an **Option** to buy the **Stock** – It's over \$15,000. That single **Option** controls a full 100 shares of **Stock**. When the share price rises, they both gain in value. If the **Stock** drops in price, you can only lose a maximum of \$575 with the **Option**, but it's potentially unlimited with the **Stock**.

Here is what happened in just over a month...



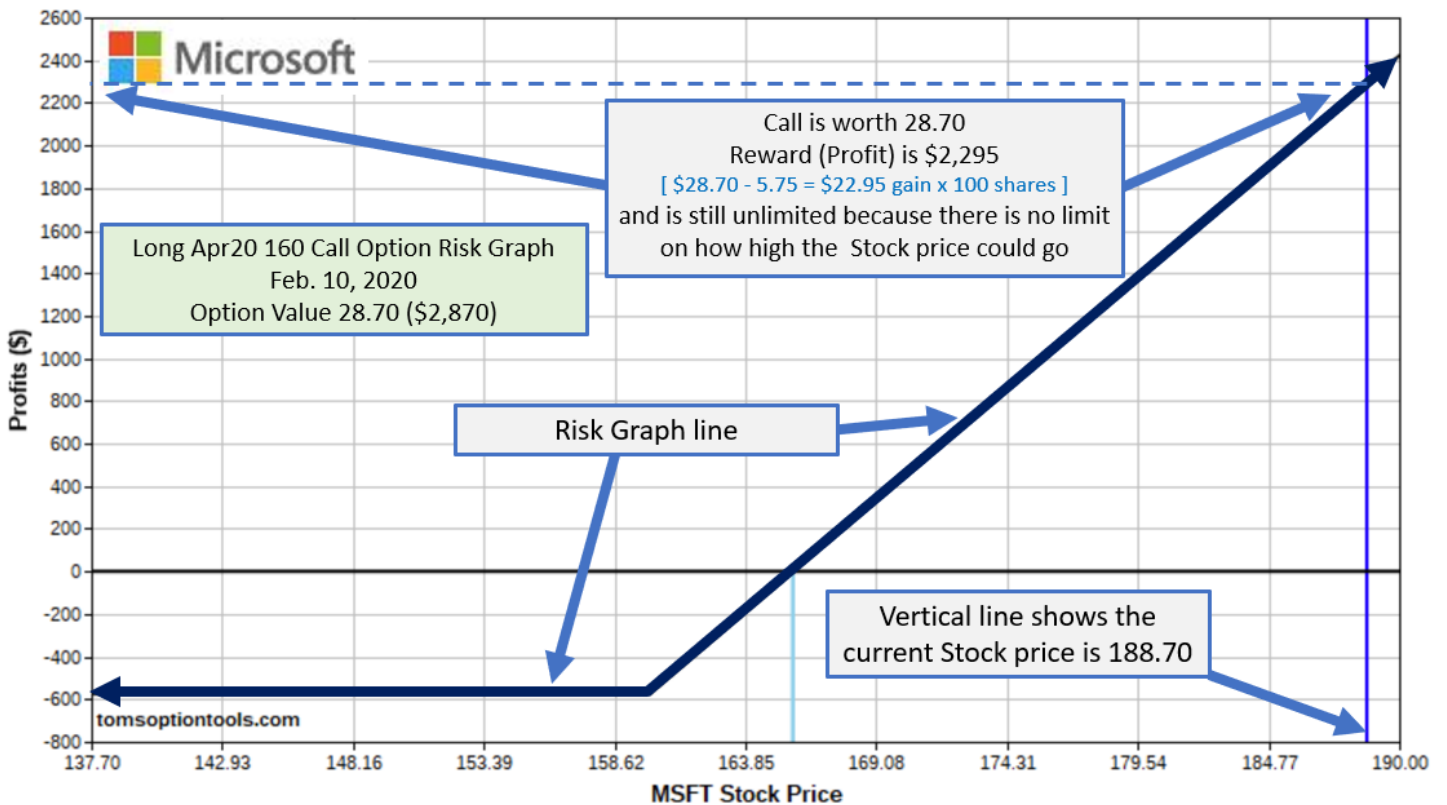
100 shares

Quote Type	Entry Debit	Profit	Rate of Return	Max Profit	Max Risk
Mid Quote	\$15770.00	\$3100.00	19.7%	\$Unlimited	\$-15770.00
Mid Quote/100	\$157.70	\$31.00	19.7%	\$Unlimited	\$-157.70



Call Option

Quote Type	Entry Debit	Profit	Rate of Return	Max Profit	Max Risk
Mid Quote	\$575.00	\$2295.00	399.1%	\$Unlimited	-\$575.00



Notice that the amount of profit in dollars is less but the Rate of Return is dramatically greater with the **Call Option**. Rate of Return is another way of saying **Return on Investment (ROI)**. Here is how to calculate **ROI**:

$$\text{Return (Profit or Loss) / Investment} = \text{ROI}$$

Stock example:

(Return) \$3,100 / (Investment) \$15,770 = .197 or 19.7% ROI

Option example:

(Return) \$2,295 / (Investment) \$575 = 3.991 or 399.1 % ROI

The reason the **Call Option** has a much greater ROI is that you only had to invest \$575 for the **Option** as opposed to \$15,770 for the **Stock**. Here's a thought, what if you bought two of the options investing only \$1,150 total? Your gain would be twice as much or \$4,590 – much better than buying the **Stock**, wouldn't you agree?

Please note, that to realize any gain or loss on a position, the position would have to be closed out. In the examples above, that would mean the asset would have to be sold to close (STC).
