

Title: Options Basics

## **Introduction**

Many of us may have a diverse portfolio consisting of stocks, bonds and mutual funds. However, for sophisticated investors, Options provide us with a whole new world of opportunities. Options are a very versatile financial derivative which allows us to speculate and hedge against potential loss. In this article, I will be discussing on how Options come about, the basics of Options, how to look at the Options table and one significant case study of how powerful Options can be.

## **Options – a brief history**

In 1791, the New York Stock Exchange opened and a market for stock options began to emerge among savvy investors.

However, in those days, a centralized marketplace for options didn't exist. Options were traded "over the counter," facilitated by broker-dealers who tried to match option sellers with option buyers. Each underlying stock strike price, expiration date and cost had to be individually negotiated.

By the late 1800s, broker-dealers began to place advertisements in financial journals on the part of potential option buyers and sellers, in hopes of attracting another interested party. So advertisements were the seed that eventually germinated into the option quote page in financial journals. However, it was quite a cumbersome process to arrange an option contract as it is by placing an ad in the newspaper and then wait for the phone to ring.

Eventually, the formation of the Put and Call Brokers and Dealers Association, Inc., helped to establish networks that could match option buyers and sellers more efficiently. But further problems arose due to the lack of standardized pricing in the options market. The terms of each option contract still had to be determined between the buyer and seller.

In 1983, index options began to be traded. This development proved critical in helping to fuel the popularity of the options industry. The first index options were traded on the CBOE 100 index, which was later renamed the S&P 100 (OEX). Four months later, options began trading on the S&P 500 index (SPX). Today, there are upwards of 50 different index options, and since 1983 more than 1 billion contracts have been traded.

1990 saw another crucial event, with the introduction of Long-term Equity Anticipation Securities (LEAPS). These options have a shelf life of up to three years, enabling investors to take advantage of longer-term trends in the market. Today, LEAPS are available on more than 2,500 different securities.

In the mid-'90s, web-based online trading started to become popular, making options instantly accessible to members of the general public. Long, long gone were the days of haggling over the terms of individual option contracts. This was a brand-new era of instant options gratification, with quotes

available on demand, covering options on a dizzying array of securities with a wide range of strike prices and expiration dates.

### **What exactly are Options?**

As defined in Investopedia, an Option is a contract that gives the buyer the right, but not the obligation, to buy or sell an underlying asset at a specific price on or before a certain date. An Option, just like a stock or bond, is a security. It is also a binding contract with strictly defined terms and properties. I will use an example to illustrate the power of Options.

Imagine that you found a seller of a house which is currently valued at \$100,000. However, you do not have that much money to pay the seller up front and you do not wish to lose this golden investment, thus you draw up an Option with the seller. The details of the Option are that the price of the house that you will buy at is \$100,000 and that you have 30 days to raise the required capital. For this, you paid a premium of \$1,000 to the seller to secure the Option. Now, two possible scenarios can happen.

In the first scenario, 2 weeks before the expiry of the Options, the government announced the Town Development Master Plan and the valuation of the house skyrocketed to \$200,000 overnight. Due to the Option, the seller is obliged to sell you the house at \$100,000. So you will happily pay up the \$100,000 and exercise the option and get the house. In this way, your potential profit is the current valuation of the house minus the cost of buying and the premium paid for the Option, giving you a profit of \$99,000 ( $\$200,000 - \$100,000 - \$1,000$ ).

In the second scenario, just days before the expiry of the Option, you need to use the money to pay for your father hospitalization. With that, you are unable to raise the required amount of capital to exercise the Option for the house and hence, you allow the Option to expire. However, in this case, you made a loss of \$1,000 due to the premium.

In the above mentioned scenarios, you can realize the significance of Options. Firstly, when an Option is drawn, the seller is obliged to sell you the agreed item at an agreed price within an agreed time period. The seller cannot change the price of the agreed item at any point in time during the agreed time period. Therefore, you can see that you can reap potential profits if the price of the item rises anytime during the time period. Secondly, at the end of the agreed time period, if you are able to pay the money, you will be able to get the item, this is called exercising the Option. However, if you are unable to raise the required capital for the item at the end of the time period, you can let the Option expire by doing nothing, but in this case, you will lose the premium you paid for the Option.

### **Reading an Option table**

No worries if the above are confusing, I am going to show you how an options table will look like which will further aid in the understanding. There are some terms which you have to know first. First, strike price – this is the price of the options. Second - the bids and asks. Bid means to buy while ask means to sell. The bid and ask are the premiums which are offered or you will offer to others. The table below shows an options table of a US stock counter called Johnson and Johnson using ThinkorSwim platform. On the table, there is also this column on the Expiry Date of options. It is an important aspect to consider when buying puts or calls as it will affect the premiums of the options. Essentially, the longer the it is to expiry date, the higher the premiums at the different strike prices of options.

CALLS					Strikes: 4	PUTS				
Last X	Net Chng	Bid X	Ask X	Exp	Strike	Bid X	Ask X	Last X	Net Chng	
OCT 13 (5) 100									26.07% (±2.277)	
▼ OCT 4 13 (12) 100 (Weeklys)									19.81% (±2.614)	
2.77 I	+1.48	2.87 C	2.92 I	OCT 4 13	87	.42 X	.45 X	.48 C	-.60	
1.83 H	+97	2.09 M	2.13 I	OCT 4 13	88	.64 X	.66 Q	.78 M	-.97	
1.15 C	+45	1.43 C	1.46 I	OCT 4 13	89	.97 I	1.00 H	1.10 I	-1.32	
.83 Z	+45	.91 H	.94 C	OCT 4 13	90	1.45 X	1.48 H	1.61 Z	-1.14	

Bid and Ask – premiums which are offered or you will offer to others

Expiry Date – an important aspect of options. It will affect the premiums of the options at different strike prices

The left side shows the table for Call options and the right side shows the table for Put options

Strike price - there are different strike prices for the options.

## More on Options

Now that you have understood how Options work, we will go more in depth into the topic. There are basically two types of Options, one is Call Option and the other being Put Option. When you expect the price of the item to increase, you will buy a Call Option, taking on a long position. If you expect the price of the item to drop, you will buy a Put Option, taking on a short position. A call gives the holder the right to buy an asset at a certain price within a specific period of time. Buyers of calls hope that the stock will increase substantially before the option expires. A put gives the holder the right to sell an asset at a certain price within a specific period of time. Buyers of puts hope that the price of the stock will fall before the option expires.

So as you can see, there are several strategies involved in options trading. You can either be buyers or sellers of call or put options. There are four types of participants in options markets depending on the position they take: buyers of calls or puts and sellers of calls or puts. Buyers are said to have long positions, and sellers are said to have short positions. Here is the important distinction between buyers

and sellers. Call holders and put holders (buyers) are not obligated to buy or sell. They have the choice to exercise their rights if they choose. Call writers and put writers (sellers), however, are obligated to buy or sell. This means that a seller may be required to make good on a promise to buy or sell.

## Significance of Options

One of the major significance of options happened during the 9/11 attack. Financial transactions in the days before the attack suggest that certain individuals used foreknowledge of the attack to reap huge profits. The evidence of insider trading includes:

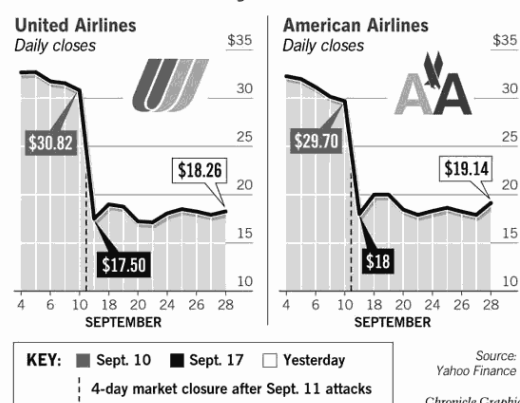
- 1) Huge surges in purchases of put options on stocks of the two airlines used in the attack -- United Airlines and American Airlines
- 2) Surges in purchases of put options on stocks of reinsurance companies expected to pay out billions to cover losses from the attack -- Munich Re and the AXA Group
- 3) Surges in purchases of put options on stocks of financial services companies hurt by the attack -- Merrill Lynch & Co., and Morgan Stanley and Bank of America
- 4) Huge surge in purchases of call options of stock of a weapons manufacturer expected to gain from the attack -- Raytheon

In each case, the anomalous purchases translated into large profits as soon as the stock market opened a week after the attack: put options were used on stocks that would be hurt by the attack, and call options were used on stocks that would benefit.

Put and call options are contracts that allow their holders to sell and buy assets, respectively, at specified prices by a certain date. Put options allow their holders to profit from declines in stock values because they allow stocks to be bought at market price and sold for the higher option price.

### Profiting from a loss

*The stocks of United and American airlines fell sharply following the Sept. 11 terrorist attacks, which used hijacked jets from the two airlines. But unknown investors made a bundle using a financial derivative that increases in value when a stock goes down.*



## Conclusion

I hope that this short article can let you have some insights to Options. There are definitely more things to options. Investors or traders must first be aware of the risks involved and know how to manage them before going into Options. Finally, Options are not for everyone, it is paramount that we use financial tools which we are comfortable with. To end, I hope that you can have fun investing or trading!