

## What Is an Option?

An option is a contract to buy or sell a specific financial product officially known as the option's underlying instrument or underlying interest. For equity options, the underlying instrument is a stock, exchange-traded fund (ETF), or similar product. The contract itself is very precise. It establishes a specific price, called the **strike price**, at which the contract may be **exercised**, or acted on. And it has an **expiration date**. When an option expires, it no longer has value and no longer exists.

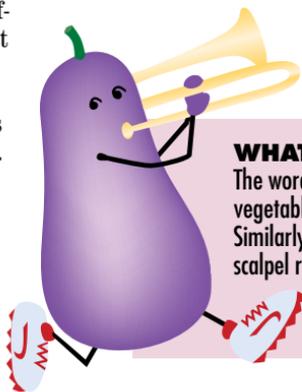
Options come in two varieties, **calls** and **puts**, and you can buy or sell either type. You make those choices—whether to buy or sell and whether to choose a call or a put—based on what you want to achieve as an options investor.

### BUYING AND SELLING

If you buy a call, you have the right to buy the underlying instrument at the strike price on or before the expiration date. If you buy a put, you have the right to sell the underlying instrument on or before expiration. In either case, as the option holder, you also have the right to sell the option to another buyer during its term or to let it expire worthless.

The situation is different if you **write**, or sell, an option, since selling obligates you to fulfill your side of the contract if the holder wishes to exercise. If you sell a call, you're obligated to sell the underlying interest at the strike price, if you're assigned. If you sell a put, you're obligated to buy the underlying interest, if assigned.

As a writer, you have no control over whether or not a contract is exercised, and you need to recognize that exercise is always possible at any time until the expiration date. But just as the buyer can sell an option back into the market rather than exercising it, as a writer you can purchase an off-setting contract and end your obligation to meet the terms of the contract.



### WHAT'S A FINANCIAL PRODUCT?

The word *product* is more likely to conjure up images of vegetables or running shoes than stocks or stock indexes. Similarly, *instrument* might suggest a trombone or a scalpel rather than a debt security or a currency. But both terms are used to refer to the broad range of investment vehicles.

### TYPES OF OPTIONS CONTRACTS

#### Calls



### AT A PREMIUM

When you buy an option, the purchase price is called the **premium**. If you sell, the premium is the amount you receive. The premium isn't fixed and changes constantly—so the premium you pay today is likely to be higher or lower than the premium yesterday or tomorrow. What those changing prices reflect is the give and take between what buyers are willing to pay and what sellers are willing to accept for the option. The point at which there's agreement becomes the price for that transaction, and then the process begins again.

If you buy options, you start out with what's known as a **net debit**. That means you've spent money you might never recover if you don't sell your option at a profit or exercise it. And if you do make money on a transaction, you must subtract the cost of the premium from any income you realize to find your net profit.

As a seller, on the other hand, you begin with a **net credit** because you col-

# THE BASICS

**An options contract gives the buyer rights and commits the seller to an obligation.**

## Puts

**BUY**  
The right to sell

**HOLDER**

**SELL**  
The obligation to buy

**WRITER**

### **RULE OF THUMB**

For options expiring in the same month, the more in-the-money an option is, the higher its premium.

lect the premium. If the option is never exercised, you keep the money. If the option is exercised, you still get to keep the premium, but are obligated to buy or sell the underlying stock if you're assigned.

### **THE VALUE OF OPTIONS**

What a particular options contract is worth to a buyer or seller is measured by how likely it is to meet their expectations. In the language of options, that's determined by whether or not the option is, or is likely to be, in-the-money or out-of-the-money at expiration. A call option is in-the-money if the current market value of the underlying stock is above the exercise price of the option, and out-of-the-money if the stock is below the exercise price. A put option is in-the-money if the current market value of the underlying stock is below the exercise price and out-of-the-money if it is above it. If an option is not in-the-money at expiration, the option is assumed to be worthless.

An option's premium has two parts: an intrinsic value and a time value. Intrinsic value is the amount by which the option is in-the-money. Time value is the difference between whatever the intrinsic value is and what the premium is. The longer the amount of time for market conditions to work to your benefit, the greater the time value.

### **Finding values**

Share market price  
– Exercise price  
= **Intrinsic value**  
  
Premium  
– Intrinsic value  
= **Time value**

### **For example**

\$25  
– \$20  
= **\$ 5**  
  
\$ 6  
– \$ 5  
= **\$ 1**

### **OPTIONS PRICES**

Several factors, including supply and demand in the market where the option is traded, affect the price of an option, as is the case with an individual stock. What's happening in the overall investment markets and the economy at large are two of the broad influences. The identity of the underlying instrument, how it traditionally behaves, and what it is doing at the moment are more specific ones. Its volatility is also an important factor, as investors attempt to gauge how likely it is that an option will move in-the-money.

### **OLD AND NEW**

American-style options can be exercised any time up until expiration while European-style options can be exercised only at the expiration date. Both styles are traded on US exchanges. All equity options are American style.

# Options Information Sources

The smart approach is to prepare for trading by researching your options.

The key to smart investing is being well informed. As an options investor, this means you'll want to research the underlying stock for a particular options series, as well as the options class and the overall market. While this takes time and requires effort on your part, the good news is that the information you need is readily available through a variety of sources—and much of it is free.

## LOOK ONLINE

Today, most options investors use the Internet as a source for at least some of their research. The Internet is easy to access for most people, much of the information is free, and news is almost always up-to-date, since financial websites are updated frequently. Even those investors who don't give their buy and sell orders online can research options and underlying stocks on the Internet.

- OIC's website, [www.OptionsEducation.org](http://www.OptionsEducation.org), and OCC's website, [www.theocc.com](http://www.theocc.com), both provide general options education, plus industry-wide volume, open interest, contract adjustments, SEC filings, and expiration cycles, among other topics.
- The websites of the options exchanges offer information on the options they list as well as real-time and delayed quotes, volume, and open interest.
- Both online and traditional full-service brokerage firms offer their clients website access to information about specific options and strategies, as well as analysis and recommendations.



## COLLEAGUES AND FRIENDS

Don't neglect your personal connections and business contacts when researching investments. Discussing options and financial markets with colleagues and friends lets you compare other perspectives with your own. Someone else's investing experience might serve as a cautionary tale or introduce you to a particular investment or a certain market sector that you might not have investigated on your own. And if you know people who have been investing longer or more successfully than you have, you might be able to learn a lot from them. Don't forget, though, that a tip from an acquaintance is never a substitute for doing your own research. Ultimately, you're responsible for all of your investment choices.

- A range of commercial sites are exclusively devoted to options information. Most of these are accessible by paid subscription only, so you'll have to use your own judgment to decide whether their education and analysis is reliable and worth paying for.
- Many of the leading financial information sites offer substantial data as well. These sites are usually free, and include MarketWatch ([www.marketwatch.com](http://www.marketwatch.com)) and Yahoo! Finance (<http://finance.yahoo.com>).

When using the Internet for research, it's important to be discriminating about the reliability of a source, just as you would when using any investment research. You can find a list of reputable

options websites at [www.OptionsEducation.org](http://www.OptionsEducation.org). They might serve as good starting points for your research.

## CHECK OUT THE PAPER?

Newspapers are another resource to consider, but the information they offer may not be as timely or as comprehensive as the news on the Internet. In the financial section of a newspaper, you may be able to find a summary of the previous day's options trading—including volume, open interest, and premiums—for some of the most

popular options. If you're looking for information about a particular option, it might be

hard to find, since the space devoted to options in a newspaper is increasingly limited. But you can check online editions for recent articles. Financial newspapers are more likely than general newspapers to have options information.

If you're interested in learning about options but aren't ready to start trading, a daily scan of a newspaper's financial section can be a good way to see how the market moves, and familiarize yourself with the way options information is presented.

## SUBSCRIBING TO NEWSLETTERS

Financial newsletters are another popular source of options information. Most options newsletters are paid services that offer subscribers a periodic update on options news, educational information, and specific recommendations on options and strategies. Some newsletters are printed, while others are only available online or delivered by email. Newsletters are usually written by options experts who offer their opinion and analysis—but who can't guarantee the success of any strategy. Some newsletters are tailored to the needs of specific groups of investors, so it's important to look for one that suits you, as well as one you trust to deliver accurate, reliable analysis.

## PUT A BROKER TO WORK

If you already work with a brokerage firm, you might be able to find options information and analysis through their website or office, just as you might when researching a stock purchase. If your brokerage firm specializes in trading options, they are likely to have a greater wealth of resources for you. Even if the firm focuses primarily on stocks, you might be able to use their research on an option's underlying instrument. But it's a good idea to support that research with options-specific information.

If you're comfortable working with your broker for research and analysis on your other investments, it might make sense to do the same for options research as well. You should check first, however, to find out whether your broker has options trading experience.

## A DISCRIMINATING READER

Newsletters and online columns often provide an analysis of options information and recommend specific trades and strategies based on that analysis. They can also be good places to learn more about individual benchmarks or indicators, and how to use them as the basis for creating strategies. If you subscribe to a newsletter or regularly read an online options column—and you consider it to be a trustworthy source of analysis—you can use their recommendations as a starting point. But you should always do your own independent research to see if the information you come across backs up any assertions or predictions they've made.



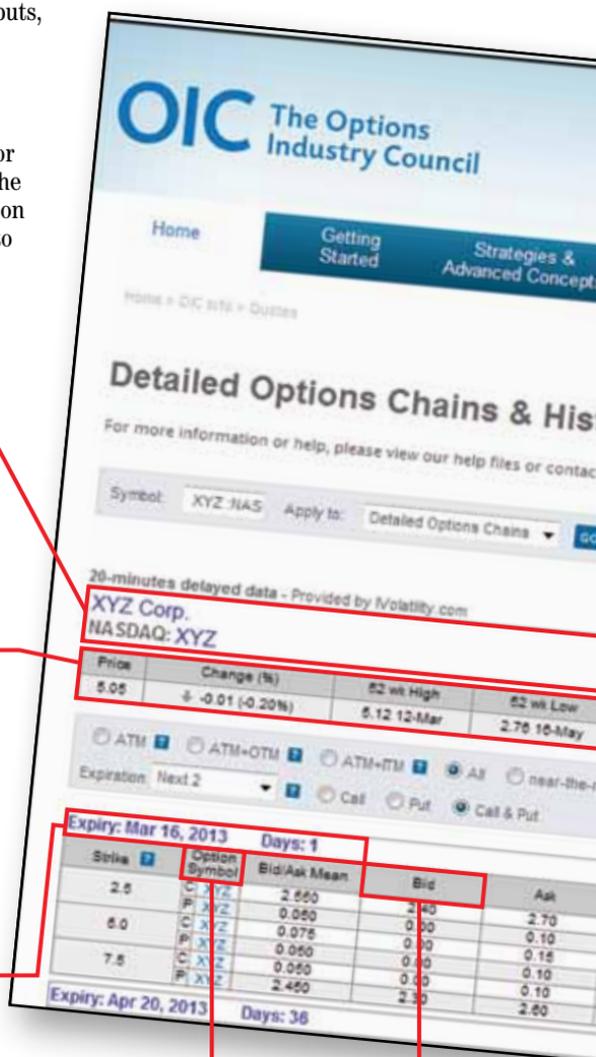
# Options Chains

Learn how to translate the specialized options tools you can find online.

Instead of options tables, many websites offer **options chains** or **options strings**. You select a particular underlying instrument, and can see a chain of all the options currently available, so that you can compare the prices for calls and puts, different strike prices, and different expiration months.

You can choose whether to display all option strike prices, or only those that are in-the-money, at-the-money, or out-of-the-money, or any combination of the three. You can also select the expiration months to be displayed and whether to include LEAPS or not.

In addition to price information for each contract that appears in the option chain, you'll find its theoretical value, implied volatility, and a calculation for each of the Greeks.



The uppermost area of the option chain indicates the name of the underlying stock, its ticker symbol, and the primary exchange on which the underlying stock is listed.

Just below you'll find information about the underlying stock, including its current market price, its net change up or down, the 52-week high and low, and the stock volume. Options statistics include the average daily option volume for the option class as well as the average open interest.

You can find the month, day, and year of option expiration as well as the number of days until expiration.

You can find the symbology key for each available option series.

The **option symbol** column indicates the option symbol for calls and puts on the underlying stock. For each strike price, the chain will display information for calls (C) and puts (P).

**Bid** indicates what buyers are willing to pay for the option, and **ask** indicates which sellers are willing to take for the option.

**Change** is a measurement of the percentage change in the option's price for the day. A positive number indicates a price increase, while a negative number indicates a decrease.

## BID AND ASK

The bid is the price that a buyer is willing to pay for an option, and the ask is the price that a seller is willing to accept. In general, the two prices are slightly different, and the gap between them is known as the spread. So how does that affect individual investors?

When you buy or sell an option—or a stock—you're possibly buying from and selling to a market maker. One role of market makers is to provide liquidity in the marketplace, making it easier to buy or sell one or more options without changing the market price. One way market

makers can profit is by buying option contracts at the current bid price and selling them at the higher ask price. Without a change in the underlying stock price, they may make a profit from the spread of only a few cents per contract. But they may trade in high volume every day, so the small profits can add up.

As a rule of thumb, the more actively traded an option is, the smaller the spread will be. But the bid and ask spread for any particular option contract may vary on the different exchanges where the contract is listed. So option brokers focus on getting their customers the best execution price among the various exchanges where the option is traded.

Options Root: XYZ

Stock Volume	100922	Avg. options volume	0	Avg. options open interest	0
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Change (%)	Volume	Open Interest	Implied Volat%	Delta	Gamma	Theta	Alpha	Vega	Rho
0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Volume** is the current number of contracts traded for each option series during the trading day. Some option chains allow you to view only options with a certain daily volume.

**Open interest** indicates the total number of open contracts outstanding.

**Implied volatility** is the volatility percentage that produces the best fit for each option series.