## Adjusted Options

Adjusted options are created as a result of a significant corporate event on the option's underlying stock such as a stock split, merger, acquisition, special dividend, spin-off, or reverse split.

After one of these events, the option is altered to reflect the changes. Adjustments made to options are often complex. We encourage you to read the FAQs below to find out more. If you have additional questions, please contact us at 1-877-594-6324.

## Adjusted Option FAQs

## Why are options adjusted?

What components of an option contract are affected by an adjustment?

Does the type of corporate action impact how the option is adjusted?

How can I tell if an option has been adjusted?
What are some examples to illustrate the impact of adjustments?

If I am holding an adjusted option, what should I do?
Should I trade adjusted options?
How can I tell if an adjusted option is at the money, out of the money, or in the money?

## Why are options adjusted?

Options are adjusted to account for a corporate action or event by adjusting the underlying terms so the buyer or seller will see no change in the valuation of the option due to the corporate action

Options are also adjusted to ensure that the overall equity or obligation of an option contract remains intact after a significant corporate action or activity.

Corporate actions or activities that may cause an option to be adjusted include stock splits, mergers, acquisitions, special dividends, spin-offs, and reverse splits.

What components of an option contract are affected by an adjustment?

There are certain characteristics common to all option contracts:

- Class: Call or Put
- Expiration Date: Varies
- Style: American or European
- Type: Equity or Index
- Symbol: Varies
- Strike Price: Varies
- Multiplier: Initially 100
- Deliverable or Contract Size: Initially 100

Among the eight items above, class, style, and type remain constant throughout the life of the contract. The expiration date will change if the underlying stock goes through an accelerated expiration-for example, due to a buyout or delisting of a stock. In this case the expiration date will change, but the symbol will remain the same.

When the underlying company goes through some type of corporate reorganization, any of the last four items can change, resulting in an adjusted option.

Does the type of corporate action impact how the option is adjusted?

The causes for adjustments to options contracts are numerous. Below is a list of the most common types of corporate actions and the resulting adjustments made to corresponding options. For example, when an ordinary cash dividend is paid, it typically has no effect on the option, whereas stock splits usually do.

| Causes of Adjusted Options |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Size/Type | Symbol change | Strike price change | Multiplier change | Contract size (deliverable change) |
| Ordinary cash dividend ${ }^{1}$ |  | No | No | No | No |
| Extraordinary cash dividend ${ }^{2}$ | $\begin{aligned} & <\$ 12.50 / \text { contract } \\ & >\$ 12.50 / \text { contract } \end{aligned}$ | No No | No Yes: reduced | No No | No Sometimes |
| Stock dividend | All | Yes | Yes: reduced | Yes: increased | Yes: increased |
| Rights offering |  | Yes | No | No | Yes: increased |
| Spin-off |  | Yes | No | No | Yes: increased |
| Stock split | 2 for 1 <br> 3 for 1 <br> 4 for 1 <br> 5 for 1 <br> 3 for 2 <br> 4 for 3 <br> 5 for 4 <br> 6 for 5 <br> 7 for 5 | No <br> No <br> No <br> No <br> Yes <br> Yes <br> Yes <br> Yes <br> Yes | Yes: reduced <br> Yes: reduced <br> Yes: reduced <br> Yes: reduced <br> Yes: reduced <br> Yes: reduced <br> Yes: reduced <br> Yes: reduced <br> Yes: reduced | No <br> No <br> No <br> No <br> Yes: increased <br> Yes: increased <br> Yes: increased <br> Yes: increased <br> Yes: increased | No <br> No <br> No <br> No <br> Yes: increased <br> Yes: increased <br> Yes: increased <br> Yes: increased <br> Yes: increased |
| Reverse stock split | $\begin{aligned} & 1 \text { for } 2 \\ & 1 \text { for } 5 \\ & 1 \text { for } 7 \\ & 1 \text { for } 10 \\ & 1 \text { for } 20 \\ & 1 \text { for } 50 \\ & 1 \text { for } 100 \end{aligned}$ | Yes <br> Yes <br> Yes <br> Yes <br> Yes <br> Yes <br> Yes | No <br> No <br> No <br> No <br> No <br> No <br> No | No <br> No <br> No <br> No <br> No <br> No <br> No | Yes: reduced Yes: reduced Yes: reduced Yes: reduced Yes: reduced Yes: reduced Yes: reduced |
| Merger or acquisition | Acquirer Acquiree | Sometimes Yes | No No | No No | $\begin{aligned} & \text { No } \\ & \text { Yes } \end{aligned}$ |
| Stock symbol or company name change |  | Sometimes | No | No | No |

${ }^{1}$ Paid on a quarterly or other regular basis, regardless of amount.
${ }^{2}$ Not paid on a quarterly or other regular basis.
Source: Schwab Center for Financial Research.

## How can I tell if an option has been adjusted?

There are several ways to help identify an adjusted option:

- The option seems much too cheap or too expensive.
- There are two different option symbols with the same month and strike price.
- The abbreviation "ADJ" appears anywhere within the option description.
- A numeric digit " 1 ", " 2 ", etc. is added as a suffix to the underlying stock symbol.


## STOCK SPLITS CAN AFFECT STRIKE PRICE, DELIVERABLE, AND

 THE NUMBER OF CONTRACTS
## Common examples:

2 for 1: Twice as many contracts with a strike price $=1 / 2$ the original strike price.

3 for 1: Three times as many contracts with a strike price $=1 / 3$ the original strike price.

3 for 2: The same quantity of contracts, a strike price = $2 / 3$ the original strike price (to the nearest penny), and the multiplier is changed from 100 to 150.

1 for 5: Reverse split. No change to strike price or multiplier; however, the deliverable becomes 20 shares.

MERGERS TYPICALLY IMPACT THE DELIVERABLE, BUT NOT THE STRIKE PRICE OR NUMBER OF CONTRACTS.

## Example:

ABC company does a takeover of XYZ company. There are 1.72 shares of ABC for every share of XYZ. No adjustment is made to the number of contracts, the strike price, or the multiplier. However, the deliverable is changed to 172 shares of $A B C$.

## SPIN-OFFS ARE SIMILAR TO MERGERS.

## Example:

DEF spins off UVW. No adjustment is made to the number of contracts, the strike price, or the multiplier. The deliverable is now 100 DEF plus " $x$ " shares of UVW.

SPECIAL DIVIDENDS MAY IMPACT STRIKE PRICE.

## Example:

IOU is trading at $\$ 100$ and authorizes an $\$ 8$ dividend. Strike prices are adjusted down by $\$ 8$ on the ex-date.

What are some examples to illustrate the impact of adjustments?

## EXAMPLE 1: 3 FOR 1 SPLIT

Customer has June $\$ 60$ calls for XYZ. XYZ stock is trading at $\$ 63$. XYZ company goes through a 3 for 1 split.

| 3 for 1 Split | Before Ex-Date | Ex-Date |
| :--- | :---: | :---: |
| Underlying Symbol | XYZ | XYZ |
| Stock Price | $\$ 63$ | $\$ 21$ |
| Strike Price | $\$ 60$ | $\$ 20$ |
| Premium <br> Strike Multiplier | 100 | 100 |
| Deliverable | 100 XYZ | 100 XYZ |
| Number of Contracts | 1 | 3 |

## EXAMPLE 2: 3 FOR 2 SPLIT

Customer has September \$40 calls for MNO. MNO stock is trading at \$36. MNO company goes through a 3 for 2 split.

| $\mathbf{3}$ for $\mathbf{2}$ Split | Before $\mathbf{E x}$-Date | Ex-Date |
| :--- | :---: | :---: |
| Underlying Symbol | MNO | MNO1 |
| Stock Price | $\$ 36$ | $\$ 24$ |
| Strike Price | $\$ 40$ | $\$ 26.67$ |
| Premium <br> Strike Multiplier | 100 | 150 |
| Deliverable | 100 MNO | 150 MNO |
| Number of Contracts | 1 | 1 |

## EXAMPLE 3: REVERSE SPLIT

Customer has May $\$ 10$ puts for RST. RST stock is trading at \$8. RST company goes through a 1 for 10 reverse split.

| 1 for $\mathbf{1 0}$ Reverse Split | Before Ex-Date | Ex-Date |
| :--- | :---: | :---: |
| Underlying Symbol | RST | RST1 |
| Stock Price | $\$ 8$ | $\$ 80$ |
| Strike Price | $\$ 10$ | $\$ 10$ |
| Premium/ | 100 | 100 |
| Strike Multiplier | 100 RST | 10 RST |
| Deliverable | 1 | 1 |
| Number of Contracts |  |  |

## EXAMPLE 4: CASH MERGER

Customer has $\$ 36$ calls for ABC. ABC stock is trading at $\$ 35$. DEF purchases ABC company in a $100 \%$ cash merger at $\$ 37.50$ per share.

| 100\% Cash Merger | Before Ex-Date | Ex-Date |
| :--- | :---: | :---: |
| Underlying Symbol | ABC | ABC |
| Stock Price | $\$ 35$ | $\$ 37.50$ |
| Strike Price | $\$ 36$ | $\$ 36$ |
| Premium <br> Strike Multiplier | 100 | 100 |
| Deliverable | 100 ABC | Cash |
| Number of Contracts | 1 | 1 |

## EXAMPLE 5: EXTRAORDINARY CASH DIVIDENDTWO SCENARIOS

Customer has $\$ 145$ calls for OPQ. OPQ stock is trading at \$155. OPQ company declares a $\$ 15$ extraordinary cash dividend.

## Scenario \#1: Extraordinary Cash Dividend- <br> Adjusting Strike Price

| 20\% Extraordinary Div. | Before Ex-Date | Ex-Date |
| :--- | :---: | :---: |
| Underlying Symbol | OPQ | OPQ |
| Stock Price | $\$ 155$ | $\$ 140$ |
| Strike Price | $\$ 145$ | $\$ 130$ |
| Premium <br> Strike Multiplier | 100 | 100 |
| Deliverable | 100 OPQ | 100 OPQ |
| Number of Contracts | 1 | 1 |

Scenario \#2: Extraordinary Cash DividendAdjustment to Deliverable

| 20\% Extraordinary Div. | Before Ex-Date | Ex-Date |
| :--- | :---: | :---: |
| Underlying Symbol | OPQ | OPQ |
| Stock Price | $\$ 155$ | $\$ 140$ |
| Strike Price | $\$ 145$ | $\$ 145$ |
| Premium/ | 100 | 100 |
| Strike Multiplier | 100 OPQ | 100 OPQ $+\$ 15$ |
| Deliverable | 1 | 1 |
| Number of Contracts |  |  |

If I am holding an adjusted option, what should I do?

You need to decide if you want to keep your options, sell them, or wait for expiration. It may be helpful to know if the option is in the money or out of the money. As with all investments, you need to do your research and become informed about the details of the adjustment event. The decision to buy, sell, hold, or exercise depends on the circumstances surrounding the adjustment and on your expectations when you entered into the initial position.

If you are unsure on how to proceed, you can always contact our options trading teams for more assistance at 1-877-594-6324.

## Should I trade adjusted options?

Adjusted options can be complex. Liquidity and price must be carefully reviewed. When considering whether to trade adjusted options, keep in mind that the volumes, time values, and open interest are typically lower, and spreads may be wider.

In addition, when options are adjusted, the deliverable can change from the original underlying stock to another underlying stock, cash, or a combination of both. Also, open interest and the number of open contracts that have not been exercised, closed, or expired as of the previous day's close will tend to decrease or not build up to a particular level to promote liquidity in the adjusted option.

If you wish to pursue trading adjusted options, it is recommended that you do your research. Always keep in mind that when you see an option whose price looks too good to be true, it probably is.

How can I tell if an adjusted option is at the money, out of the money, or in the money?

To understand if an adjusted option is at, out of, or in the money, you first need to know the terms of the option after the corporate event. The best resource to locate this published information is The Options Clearing Corporation's website.

Next you can use the following formulas to determine if an adjusted contract is at, out of, or in the money:

## QUICK REFERENCE—CALLS: CASH AND STOCK DELIVERY

Step 1: Calculate the exercise/assignment value of the adjusted option:
(Multiplier or Conversion to Common) x (Strike Price)
$\qquad$ x $\qquad$ $=$ $\qquad$

Step 2: Calculate the market value of the package the adjusted option represents:
(Market Price of Stock(s) x Number of Shares Deliverable) + Any Cash
$\qquad$ x $\qquad$ $+$ $\qquad$ $=$ $\qquad$
Step 3: Calculate the difference between the market value of the adjusted options package and the exercise/ assignment value of the adjusted option:
(Market Value of Adjusted Options Package) - (Assignment Value of Adjusted Option)
(Step 2) - (Step 1)
$\qquad$ - $\qquad$ $=$ $\qquad$
If your result is a positive number, the call is in the money. If the result is a negative number, the adjusted option is out of the money.

Step 4: Calculate the underlying per-share price in/out of the money amount of the adjusted options package:
(Step 3) $\div$ (Multiplier from Step 1)
$\qquad$ $\div$ $\qquad$ $=$ $\qquad$

The result will answer the commonly asked question "How much does the underlying per-share price need to move before the adjusted option is in the money?"

## Example:

Consider two options on XYZ, which is trading at \$35.75:
XYZ 01/21/20XX 36.00 C trading \$3.00 to \$3.50
XYZ1 01/21/20XX 36.00 C trading \$5.60 to $\$ 7.30$
A covered call seller may be attracted to the larger premium of the second contract, but using the equations above, we can determine if that makes sense.

XYZ 01/21/20XX 36.00 C is an unadjusted option and represents 100 shares.

XYZ1 01/21/20XX 36.00 C is adjusted and represents 100 shares of ABC and $\$ 464.92$ in cash.

## Step 1: Calculate the exercise/assignment value of the adjusted option:

(Multiplier or Conversion to Common) x (Strike Price)
$100 \times \$ 36=\$ 3,600$

## Step 2: Calculate the market value of the package the adjusted option represents:

(Market Price of Stock x Number of Shares Deliverable) + Any Cash
$(35.75 \times 100)+\$ 464.92=\$ 4,039.92$

## Step 3: Calculate the difference between the market value of the adjusted options package and the exercise/ assignment value of the adjusted option:

(Market Value of Adjusted Options Package) - (Assignment Value of Adjusted Option)
(Step 2) - (Step 1)
$\$ 4,039.92-\$ 3,600=\$ 439.92$. Because this number is positive, the adjusted option is in the money. If the result were a negative number, the option would be out of the money.

Step 4: Calculate the underlying per-share price in/out of the money amount of the adjusted options package:
(Step 3$) \div$ (Multiplier from Step 1)
$\$ 439.92 \div 100=\$ 4.40$
$\$ 439.92$ is the amount the adjusted options package is in the money. The package is valued at \$4,039.92 and the exercise/assignment value is $\$ 3,600$-a difference of $\$ 439.92$. The option has an underlying multiplier of 100. Simply divide the amount in the money, \$439.92, by the multiplier of 100 to solve for the underlying per-share amount of $\$ 4.40$, which tells you how much you are in the money.

## QUICK REFERENCE—PUTS: CASH AND STOCK DELIVERY

Step 1: Calculate the exercise/assignment value of the adjusted option:
(Multiplier or Conversion to Common) $\times($ Strike Price $)=$ Exercise/Assignment Value
$\qquad$ x $\qquad$ $=$ $\qquad$
Step 2: Calculate the market value of the security or the adjusted options package:
(Market Price of Stock(s) x Number of Shares Deliverable) + Any Cash
$\qquad$ x $\qquad$ $+$ $\qquad$ $=$ $\qquad$
Step 3: Calculate the difference between the market value of the adjusted options package and the assignment value of the adjusted option:
(Assignment Value of Option) - (Market Value of Options Package)
(Step 1) - (Step 2)
$\qquad$ - $\qquad$ $=$ $\qquad$
If the result is a positive number, the put is in the money. If the result is a negative number, the option is out of the money.

Step 4: Calculate the underlying per-share price in/out of the money amount of the adjusted options package:
(Step 3) $\div$ (Multiplier from Step 1)
$\qquad$ $\div$ $\qquad$ $=$ $\qquad$
The result will answer the commonly asked question "How much does the underlying per-share price need to move before the adjusted option is in the money?"

## Example:

Consider two options on YYZ, which is trading at \$38.15:
YYZ 03/19/20XX 40.00 P trading \$4.00 to \$4.30
YYZ1 03/19/20XX 40.00 P trading $\$ 7.40$ to $\$ 7.70$
A person looking for put protection may wonder why one option is priced so much higher than the other and which one would make the most sense to cover their 100 shares.

YYZ 03/19/20XX 40.00 P is a standard unadjusted option that represents 100 shares of YYZ stock.

YYZ1 03/19/20XX 40.00 is an adjusted option that represents 57 shares of $Y Y Z$ and $\$ 1,070.45$ in cash.

## Step 1: Calculate the exercise/assignment value of the adjusted option:

(Multiplier or Conversion to Common) x (Strike Price)
$100 \times \$ 40=\$ 4,000$

## Step 2: Calculate the market value of the security or the adjusted options package:

(Market Price of Stock x Number of Shares Deliverable) + Any Cash
$(\$ 38.15 \times 57)+\$ 1,070.45=\$ 3,245$
Step 3: Calculate the difference between the market value of the adjusted options package and the assignment value of the adjusted option:
(Assignment Value of Option) - (Market Value of Options Package)
(Step 1) - (Step 2)
$\$ 4,000-\$ 3,245=\$ 755$. Because this number is positive, the option is in the money. If the result were a negative number, the option would be out of the money.

## Step 4: Calculate the underlying per-share price in/out of the money amount of the adjusted options package:

(Step 3) $\div$ (Multiplier from Step 1)
$\$ 755 \div 100=\$ 7.55$
$\$ 755$ is the amount the adjusted options package is in the money. The package is valued at $\$ 3,245$ and the exercise/assignment value is $\$ 4,000-$ a difference of $\$ 755$. The option has an underlying multiplier of 100 . Simply divide the amount in the money, $\$ 755$, by the multiplier of 100 to solve for the underlying per-share amount of $\$ 7.55$, which tells you how much you are in the money.

## Important Disclosures

Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Please read the options disclosure document titled "Characteristics and Risks of Standardized Options."
Stock and option symbols, and price and volume data shown here, are for illustrative purposes only. Any strategies discussed, including examples using actual securities and price data, should not be construed as a recommendation or an offer to sell or a solicitation of an offer to buy any securities. Charles Schwab \& Co., Inc, its parent or affiliates, and/or its employees and directors may have positions in securities referenced herein, and may, as principal or agent, buy from or sell to clients.

