

Options

Options contracts are derivative product where their value is dependent on certain factors

1. underlying stock price
2. time til expiration
3. implied volatility
4. strike price you trade

Options are a product that are traded by both buyers and sellers

Options Chain

- An options chain is a listing of all available options contracts for a given security
- It shows all listed puts, calls, expiration, strike prices, volume and pricing information for a single underlying asset within a given maturity period
- The chain will typically be categorized by expiration date & segmented by calls vs. puts

Apple Inc. (AAPL)
NasdaqGS - NasdaqGS Real Time Price. Currency in USD [Add to watchlist](#)

183.20 -3.40 (-1.82%)
As of 1:27PM EDT. Market open. [Buy](#) [Sell](#)

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Calls for August 16, 2019

Contract Name	Last Trade Date	Strike	▲Last Price	Bid	Ask	Change	% Change	Volume	Open Interest	Implied Volatility
AAPL190816C00120000	2019-05-16 12:29PM EDT	120.00	73.00	63.60	64.35	0.00	-	53	166	53.69%
AAPL190816C00125000	2019-05-13 12:35PM EDT	125.00	62.76	58.75	59.50	0.00	-	5	16	51.05%
AAPL190816C00130000	2019-05-16 12:44PM EDT	130.00	62.90	53.85	54.60	0.00	-	18	36	51.17%
AAPL190816C00140000	2019-05-20 2:54PM EDT	140.00	43.88	44.70	45.10	0.00	-	10	39	45.79%
AAPL190816C00145000	2019-05-20 2:54PM EDT	145.00	39.27	39.95	40.45	0.00	-	40	72	43.35%
AAPL190816C00150000	2019-05-22 12:19PM EDT	150.00	35.76	35.55	35.75	-3.24	-8.31%	7	556	40.34%
AAPL190816C00155000	2019-05-21 11:05AM EDT	155.00	34.95	31.00	31.35	0.00	-	16	505	38.48%
AAPL190816C00160000	2019-05-22 10:22AM EDT	160.00	26.95	26.65	27.15	+0.35	+1.32%	9	238	36.91%
AAPL190816C00165000	2019-05-22 9:31AM EDT	165.00	24.20	22.85	23.05	-1.20	-4.72%	6	278	35.08%

Contract Name

Usually with the abbreviation of the company whose stock it is, i.e AAPL followed by some numbers and letters

Last Trade Date

Last exact time and date when a contract changed hands

Strike Price

- Buyer of a Call option would have the right, but not the obligation, to buy that stock in the future at the strike price.
- Buyer of a Put option would have the right, but not the obligation, to sell that stock in the future at the strike price.

Net Change

"The direction (up, down, or flat) for the underlying asset as well as the amount of price variance from the previous trade"

- Change in the strike price of the option from the previous session/day's closing price
- Negative value (displayed in red) means the price decreased from the previous day
- Positive value (displayed in green) means the price increased from the previous day

Percentage (%) Change

Net Change has a fraction of the Last Price i.e $(\text{net change} / \text{last price}) * 100$

Last Price

The last price column displays the latest trade price captured and reported.

Bid Price

"How much a trader who already has the option, can expect to receive on the sale of that option at this time."

- The bid price shown is the best available price quoted from the major exchanges.
- If the bid price on a specific option is **2.40**, that means that there may be many bids below it, say 2.10, 2.20, 2.25, 2.35 and **2.40**
- The highest number **2.40** is the one shown on the screen because it represents the best bid being traded on the market.

Ask Price

"How much a trader can expect to pay to purchase this option at this time"

- Sellers are offering many prices as well, coming in at 2.80, 2.70, 2.60, 2.55, and **2.50**
- All these 'asks' are offers being given by sellers.
- The lowest number **2.50** is the one shown on the screen because it represents the best ask being traded on the market.

Bid/Ask Spread (*Lower Spread = Higher Liquidity*)

"Low bid/ask spread reflects a more willing market"

- Buyers offer the price they're willing to pay – this is the bid price
- Buyers are bidding exact prices to try to get filled
- Sellers offer prices they're willing to receive to sell the option
- Sellers are bidding exact prices to try to get filled
- These prices establish the bid/ask spread
- The bid ask spread on the example above would be shown as **2.40/2.50**
- These is the tightest version of the spread
- The distance between bid and ask reflect the liquidity of the underlying option.
- If you're trading options short-term using intra-day or swing trade strategies you want to look for options that have tight bid-ask spreads
- The general rule is to look for spreads that are 0.30 or less in distance between bid/ask
- This establishes a 'liquid' spread

Open Interest (*Higher Open Interest = Higher Liquidity*)

"Measures the total number of options outstanding on each strike and maturity"

- Allows you to gauge the scale of market commitment
- High open interest is a reflection of a highly trade committed market
- It adds up all the open buys and sells and tallies the total in the options chain
- Open Interest is a reflection of liquidity
- General rule is that there should be **100+** contracts before you trade that strike price
- Its better to lean on the side of safety and make sure you're trading liquid options
- There are some exceptions
- If a contract was just created on a highly liquid stock, then its possible the open interest will be low, but the option will still be tradable

Trading Volume (*High Volume = High Liquidity*)

"A measure of the number of contracts that have changed hands in a given day"

- Volume represents the number of options contracts traded that day
- In the morning, volume will naturally be low
- For the most traded options in the market, volume will come in earlier in the trading day
- Consider what stock you're trading, what time of day it is and look at all of the strikes in the option chain, before making a judgment on whether the volume is high enough for your trade