

# **Options Trading A-Z**

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### **Presentation Outline**

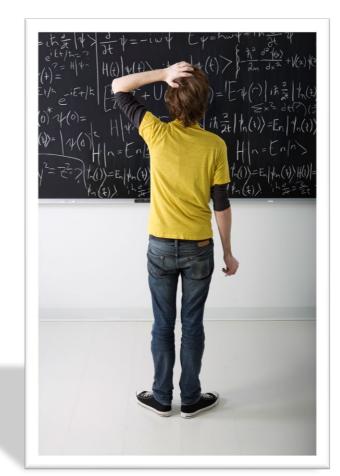
- Options Listings
- Basics
- Options Pricing
  - Supply and Demand
  - Moneyness
  - Variables
- Exercise and Assignment
  - Option Holders
  - Option Sellers





# **Options Exchanges Decide**

- Pursuant to option exchange rules, securities meeting the following criteria are candidates to have listed options:
  - Shares trading on a national stock exchange
  - Minimum price of \$3 per share for three consecutive trading days prior to listing
  - At least 7 million publicly held shares outstanding
  - At least 2,000 shareholders
  - Criteria typically applies to equity and ETF listings
- Generally, a minimum of three trading days from the IPO date





# **Defining an Option**

- Options are contracts that give:
  - The buyer the <u>right</u> to buy or sell an underlying asset
  - The seller the *obligation* to buy or sell an underlying asset
  - At a specified price (strike price),
  - Prior to the expiration of the contract (expiration date)





# **Buyers and Sellers (Rights and Obligations)**

Option contracts give...

	Calls	Puts
Buyer/Holder (Long)	<b>Right</b> to buy	Right to sell
Seller/Writer (Short)	Obligation to sell	Obligation to buy

- Typically 100 shares of the underlying
- at the strike price
- any time before expiration



# **Options Pricing**







# **Options Pricing**

#### Who makes options prices?

- All market participants (buyers & sellers)
- Individual & Institutional investors
- Professional market-makers
- Best bid/ask is consensus of all bids and offers

#### What is an option ultimately worth?

- What the market is willing to pay
- Pricing models used as guideline
- Supply/demand & market dynamics can override theoretical values

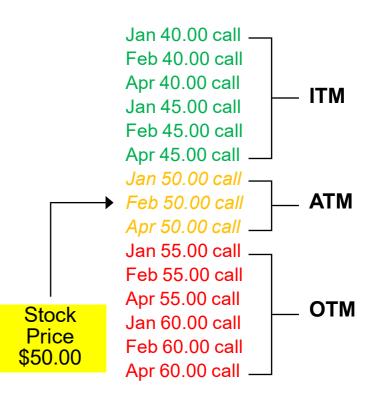






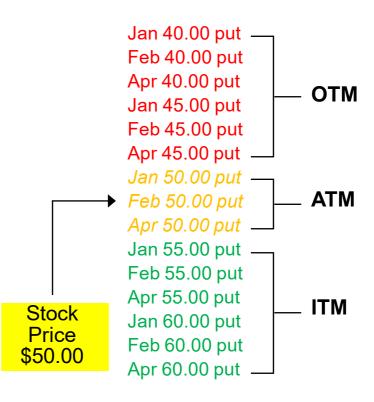
# Calls: In-the-Money, At-the-Money, Out-of-the-Money

- Call is in-the-money (ITM)
  - Strike price below stock price
- Call is <u>at-the-money</u> (ATM)
  - Strike price same as stock price
- Call is <u>out-of-the-money</u> (OTM)
  - Strike price above stock price



# Puts: In-the-Money, At-the-Money, Out-of-the-Money

- Put is <u>in-the-money</u> (ITM)
  - Strike price above stock price
- Put is <u>at-the-money</u> (ATM)
  - Strike price same as stock price
- Put is <u>out-of-the-money</u> (OTM)
  - Strike price below stock price



# **Options Pricing Models**

Mathematical formulas that can be a useful tool in establishing a trading plan

#### Pricing Model Inputs

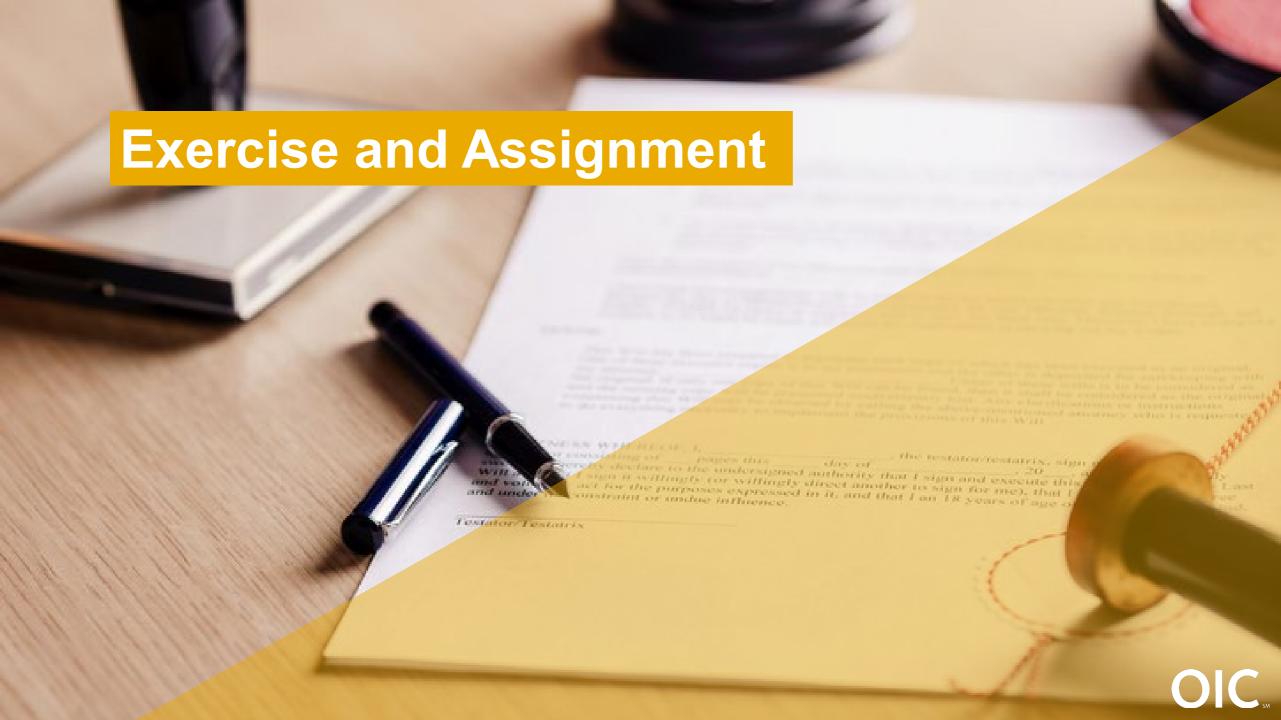
- Stock price
- Strike price
- Implied Volatility (IV)
- Time until expiration
- Cost of money (interest rates less dividends)

#### Output

Call and put premiums (theoretical values)

In addition to pricing factors there is unpredictable *supply and demand* 





# **Exercise: Buy or Sell Underlying Stock**

- The option <u>buyer</u> has the <u>right</u>:
  - to buy (for a call) or sell (for a put)
  - Typically 100 shares of underlying stock/ETF
  - at the strike price per share
  - if he/she <u>exercises</u> a long contract
- To exercise, the buyer issues an exercise notice to his/her brokerage firm (or Auto-ex)
- Only option <u>buyers</u> may <u>exercise</u> an options contract



# **Assignment: Buy or Sell Underlying Stock**

- The option **seller** has the **obligation**:
  - to sell (for a call) or buy (for a put)
  - Typically 100 shares of underlying stock/ETF
  - at the strike price per share
  - if he/she is assigned an exercise notice
- Assignment notice is received from seller's brokerage firm
- Only option sellers may be assigned on an options contract







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