

# Core concepts in options investing

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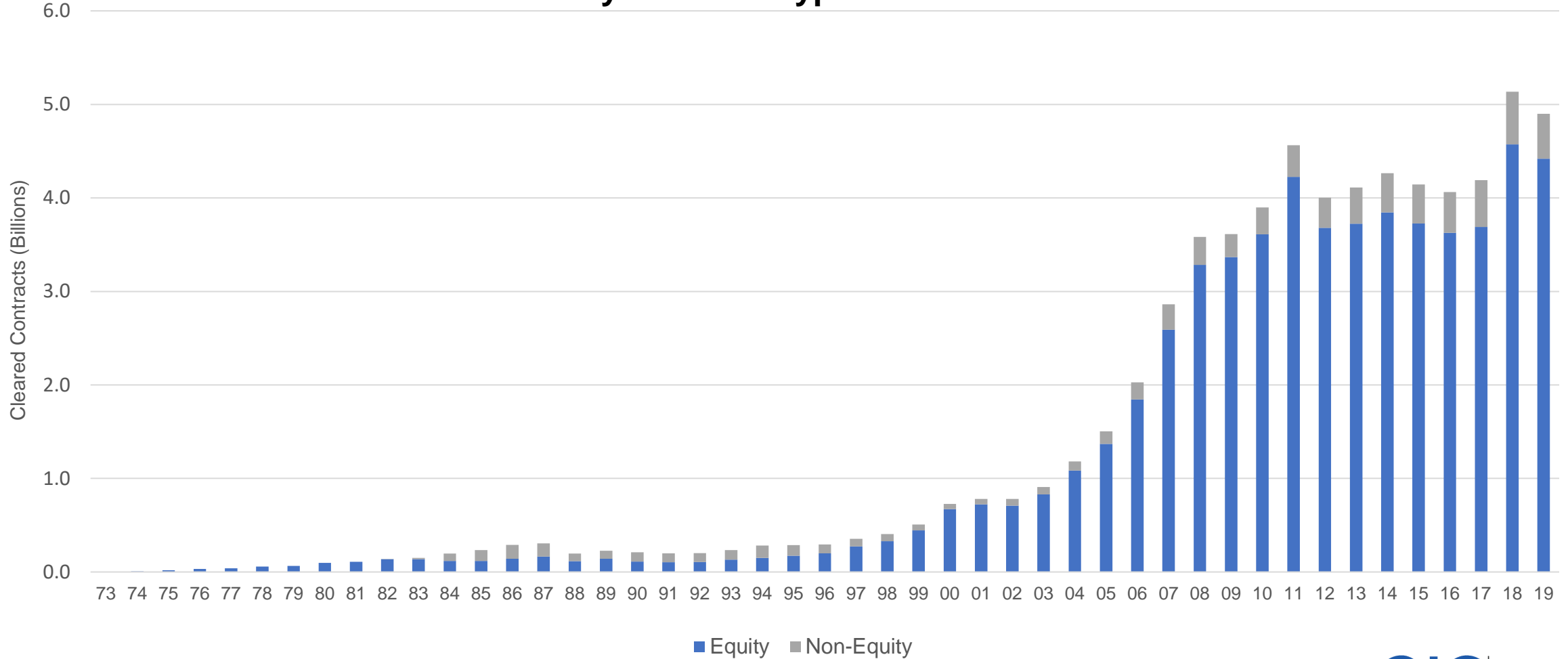
# Presentation Outline

- 2020 Options Volume
- Calls and Puts
- Selecting Strike and Expiration
- Quotes and Order Types



# Annual Options Volume 1973-2019

## OCC Annual Contract Volume by Contract Type



# Calls and Puts



# Why Options?

- Options give you more ways to implement your market research
- Options make it possible to target a variety of investment objectives:
  - *Risk Reduction*
  - *Speculation*
  - *Income Generation*
  - *Stock Acquisition*
- Options offer **FLEXIBILITY!**



# Equity Call Options

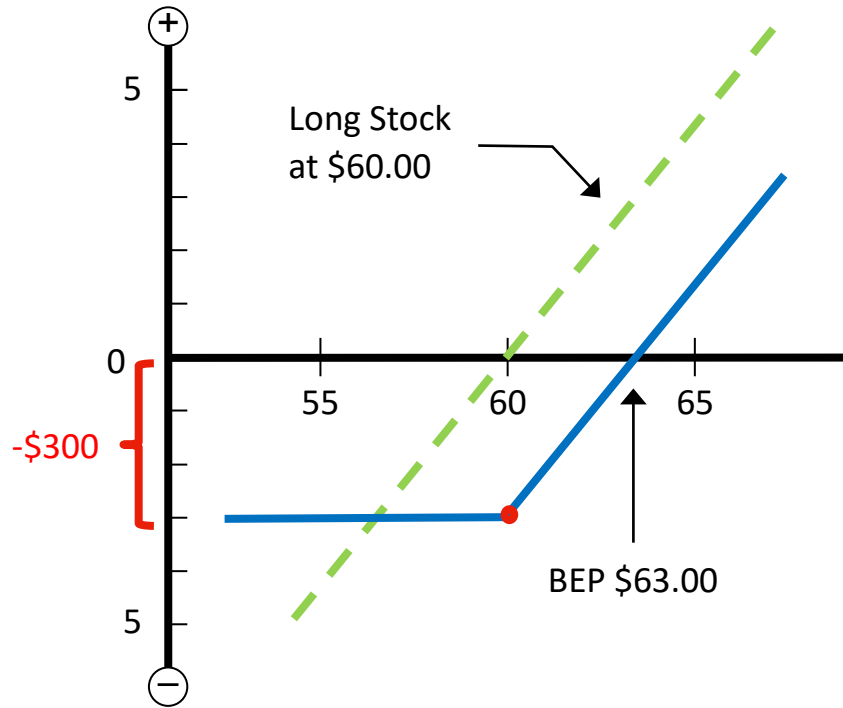
- An equity call **buyer**:
  - Owns the **right to buy** underlying stock/ETF
  - Bullish on underlying
  - Needs stock movement > time decay
  
- An equity call **seller**:
  - Has the **obligation to sell** underlying stock/ETF
  - Likely already owns shares





# Call Buying Example

Buy 60.00 strike call at \$3.00

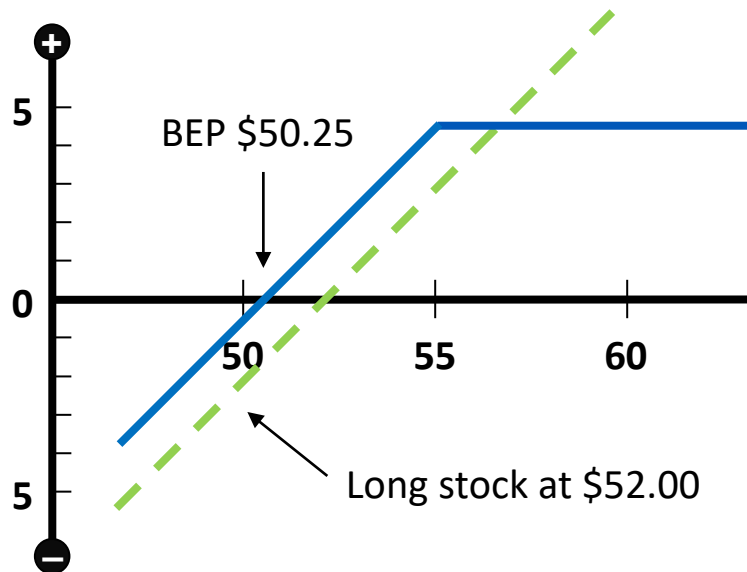


**Break-even at Expiration:**  
Strike Price + Call Premium Paid  
 $\$60.00 + \$3.00 = \$63.00$

**Maximum Loss:**  
\$3.00 Call Premium Paid  
\$300.00 Total

# Covered Call Example

Own 100 shares XYZ at \$52.00  
Sell 1 XYZ 55 call at \$1.75



Does not include commissions, fees, margin interest or taxes.

## Break-even at Expiration:

Stock Price Paid –  
Call Premium Received  
 $\$52.00 - \$1.75 = \$50.25$

## Maximum Profit if Assigned:

Effective Stock Sale Price –

- Stock Price Paid

$$(\$55.00 + \$1.75) - \$52.00 = \$4.75$$

- \$475.00 Total

# Equity Put Options

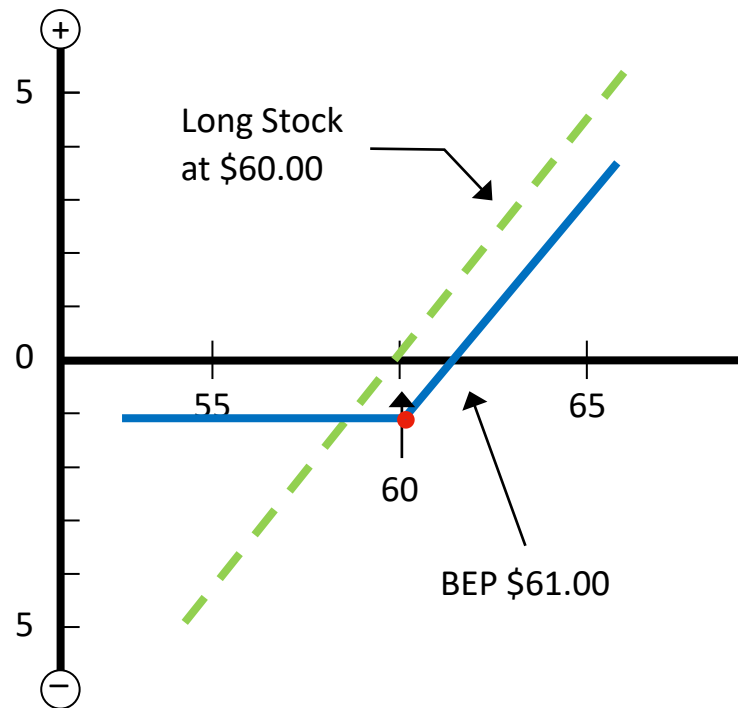
- An equity put **buyer**:
  - Owns the **right to sell** underlying stock/ETF
  - If speculating, is bearish on underlying
  - If shares are already owned, is buying protection
  
- An equity put **seller**:
  - Has the **obligation to buy** underlying stock/ ETF
  - Generate income while waiting for share price drop



# Protective Put Example

Long Stock at \$60

Buy 60.00 strike put at \$1.00



**Break-even at Expiration:**  
Initial Share Price + Put Premium  
Paid

$$\$60.00 + \$1.00 = \$61.00$$

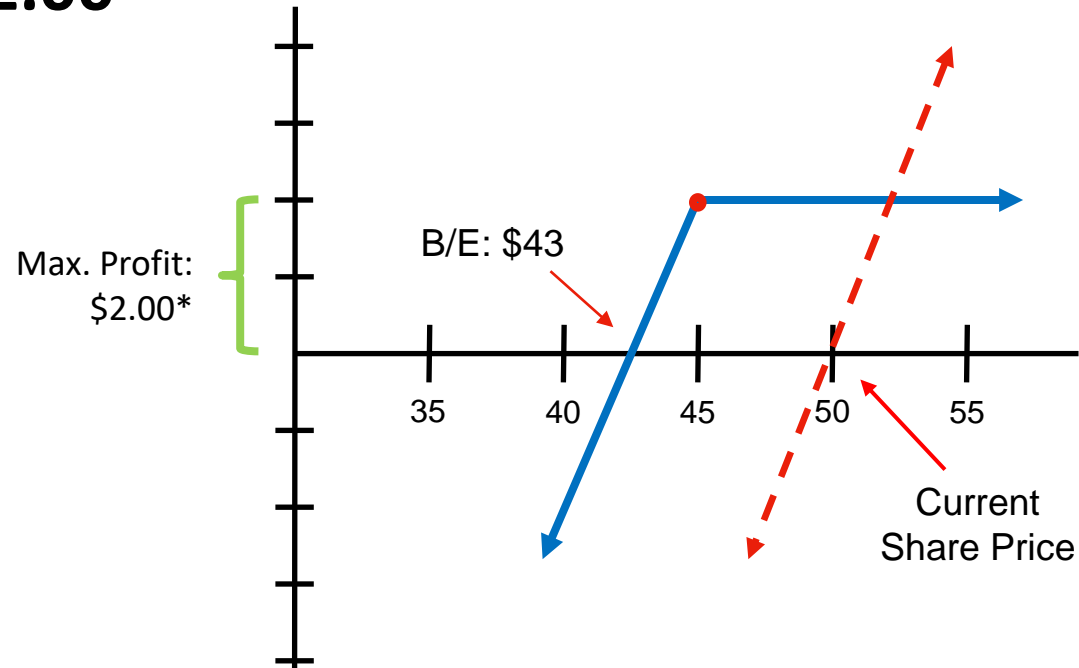
**Maximum Loss:**  
\$1.00 Put Premium Paid  
\$100.00 Total

# Cash Secured Put Example

## Sell 1 XYZ 60-day 45 put at \$2.00

*Breakeven = strike - premium*

*\* Max profit of \$2.00 does not take into account resulting long stock position should assignment occur*



Not including commissions

# Calls and Puts

Options contracts **give...**

	Call	Put
<b>Long</b> (buyer or holder)	<b>Right to buy</b>	<b>Right to sell</b>
<b>Short</b> (seller or writer)	<b>Obligation to sell</b>	<b>Obligation to buy</b>

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

# Choosing Strike and Expiration

# Strike selection

## *In, At, & Out-of-the Money*

Options pricing has two components:

- Intrinsic Value: Difference between strike price and share price
- Extrinsic (Time) Value: Comprised of time to expiration, implied volatility, dividends and interest rates

ITM options have intrinsic value and MAY have extrinsic as well

ATM/OTM options have extrinsic value ONLY



# The “Moneyness” of an Option

In-the-Money (ITM)

At-the-Money (ATM)

Out-of-the-Money (OTM)

Moneyness  $\neq$  Profit

- Used to determine intrinsic value of the contract
- Stock price movements influence intrinsic value
- All ATM/OTM options have ZERO intrinsic value

## Call Options

<u>Moneyness</u>	<u>Relationship to Stock</u>
In-the-Money	Strike price < Stock price
At-the-Money	Strike price = Stock price
Out-of-the-Money	Strike price > Stock price

## Put Options

<u>Moneyness</u>	<u>Relationship to Stock</u>
In-the-Money	Strike price > Stock price
At-the-Money	Strike price = Stock price
Out-of-the-Money	Strike price < Stock price

# Strike selection

## *In, At, & Out-of-the Money*

### In-the money strikes

- Higher total premium than ATM/OTM strikes of same expiry
- Premium will have intrinsic and extrinsic value
- Greater likelihood of contract having intrinsic value at expiry

### At/Out-of-the money strike

- Lower premium than ATM/OTM strikes of same expiry
- More aggressive choice for buyers
- Less likelihood of contract having intrinsic value at expiry

# Expiry selection

***Weekly's<sup>SM</sup>, Monthly's, and LEAPS<sup>®</sup>***

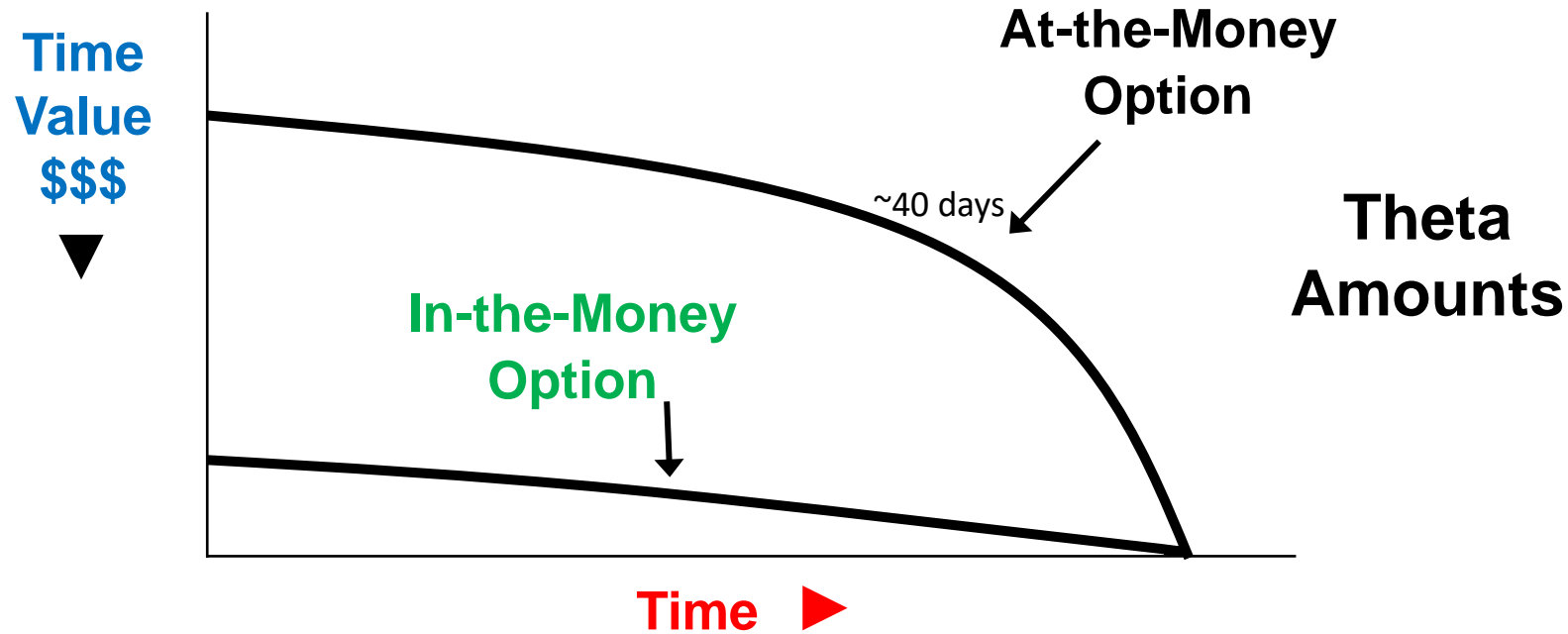
***TIME IS MONEY!!!***

As time is a component of options pricing (extrinsic value), *more time will translate into higher premiums*

Ex. 50 strike: LEAPS > Monthly > Weekly

Remember forecast? *Where is the stock going to go and how long will it take to get there?*

# Option Theta and Expiry



Overall rate of time decay is exponential (**accelerates** towards expiry)

ATM = decay exponential = volatility is key decay factor

ITM = decay linear = cost-to-carry is key decay factor

# Quotes and Order Types

A hand in a blue shirt is shown placing a wooden block on a row of other wooden blocks. The blocks are arranged in a line, and the hand is carefully positioning the next one. The background is a blurred office setting with a window and a desk.

# Order Types

**Buy to Open:** Purchase transaction to create or add to a long options position

**Buy to Close:** Purchase transaction to exit or reduce a short options position

**Sell to Open:** Sale transaction to create or add to a short options position

**Sell to Close:** Sale transaction to exit or reduce a long options position



# Order Types

**Market Order:** An order placed with a broker to immediately buy or sell a stock or option at the best available price.

**Limit Order:** An order placed with a broker to buy or sell stock or options at a specific price.

# Quotes

Strike <span>?</span>	Option Symbol	Bid/Ask Mean	Bid	Ask
311.0	C XYZ	4.545	4.52	4.57
	P XYZ	4.005	3.98	4.03
312.0	C XYZ	3.885	3.86	3.91
	P XYZ	4.415	4.39	4.44