

2026  
CFA<sup>®</sup>  
Exam Prep

# SchweserNotes<sup>™</sup>

Derivatives, Risk Management, and  
Ethical and Professional Standards

Level III Book 3

KAPLAN ) SCHWESER

Book 3: Derivatives, Risk Management, and  
Ethical and Professional Standards

**SchweserNotes™ 2026**

Level III CFA®

**KAPLAN**  **SCHWESER**

SCHWESERNOTES™ 2026 LEVEL III CFA® BOOK 3: DERIVATIVES, RISK MANAGEMENT, AND ETHICAL AND PROFESSIONAL STANDARDS

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# Learning Outcome Statements (LOS)

## 16. Options Strategies

The candidate should be able to:

- a. demonstrate how an asset's returns may be replicated by using options.
- b. discuss the investment objective(s), structure, payoff, risk(s), value at expiration, profit, maximum profit, maximum loss, and breakeven underlying price at expiration of a covered call position.
- c. discuss the investment objective(s), structure, payoff, risk(s), value at expiration, profit, maximum profit, maximum loss, and breakeven underlying price at expiration of a protective put position.
- d. compare the delta of covered call and protective put positions with the position of being long an asset and short a forward on the underlying asset.
- e. compare the effect of buying a call on a short underlying position with the effect of selling a put on a short underlying position.
- f. discuss the investment objective(s), structure, payoffs, risk(s), value at expiration, profit, maximum profit, maximum loss, and breakeven underlying price at expiration of the following option strategies: bull spread, bear spread, straddle, and collar.
- g. describe uses of calendar spreads.
- h. discuss volatility skew and smile.
- i. identify and evaluate appropriate option strategies consistent with given investment objectives.
- j. demonstrate the use of options to achieve targeted equity risk exposures.

## 17. Swaps, Forwards, and Futures Strategies

The candidate should be able to:

- a. demonstrate how interest rate swaps, forwards, and futures can be used to modify a portfolio's risk and return.
- b. demonstrate how currency swaps, forwards, and futures can be used to modify a portfolio's risk and return.
- c. demonstrate how equity swaps, forwards, and futures can be used to modify a portfolio's risk and return.
- d. demonstrate the use of volatility derivatives and variance swaps.
- e. demonstrate the use of derivatives to achieve targeted equity and interest rate risk exposures.
- f. demonstrate the use of derivatives in asset allocation, rebalancing, and inferring market expectations.

## 18. Currency Management: An Introduction

The candidate should be able to:

- a. analyze the effects of currency movements on portfolio risk and return.
- b. discuss strategic choices in currency management.
- c. formulate an appropriate currency management program given financial market conditions and portfolio objectives and constraints.
- d. compare active currency trading strategies based on economic fundamentals, technical analysis, carry-trade, and volatility trading.
- e. describe how changes in factors underlying active trading strategies affect tactical trading decisions.
- f. describe how forward contracts and fx (foreign exchange) swaps are used to adjust hedge ratios.
- g. describe trading strategies used to reduce hedging costs and modify the risk-return characteristics of a foreign-currency portfolio.
- h. describe the use of cross-hedges, macro-hedges, and minimum-variance-hedge ratios in portfolios exposed to multiple foreign currencies.
- i. discuss challenges for managing emerging market currency exposures.

## 19 & 20. Code of Ethics and Standards of Professional Conduct, Guidance for Standards I-

## VII

The candidate should be able to:

- 19a. describe the structure of the CFA Institute Professional Conduct Program and the disciplinary review process for the enforcement of the CFA Institute Code of Ethics and Standards of Professional Conduct.
- 19b. explain the ethical responsibilities required by the Code and Standards, including the subsections of each standard.
- 20a. demonstrate a thorough knowledge of the CFA Institute Code of Ethics and Standards of Professional Conduct by interpreting the Code and Standards in various situations involving issues of professional integrity.
- 20b. recommend practices and procedures designed to prevent violations of the Code and Standards.

### **21. Application of the Code and Standards: Level III**

The candidate should be able to:

- a. evaluate practices, policies, and conduct relative to the CFA Institute Code of Ethics and Standards of Professional Conduct.
- b. explain how the practices, policies, or conduct does or does not violate the CFA Institute Code of Ethics and Standards of Professional Conduct.

### **22. Asset Manager Code of Professional Conduct**

The candidate should be able to:

- a. explain the purpose of the Asset Manager Code and the benefits that may accrue to a firm that adopts the Code.
- b. explain the ethical and professional responsibilities required by the six General Principles of Conduct of the Asset Manager Code.
- c. determine whether an asset manager's practices and procedures are consistent with the Asset Manager Code.
- d. recommend practices and procedures designed to prevent violations of the Asset Manager Code.

## READING 16

# OPTIONS STRATEGIES

### EXAM FOCUS

The primary focus of this reading is on the ways in which derivative contracts (i.e., instruments whose values derive from the economic performance of underlying securities, currencies, or other instruments or factors) may be used to hedge, or change the degree of exposure to, existing positions (e.g., a holding of a stock, or the exposure to a foreign currency caused by the ownership of an asset or liability in that currency). We will also see how derivatives, particularly options, can be used to obtain exposures to instruments and factors that cannot be obtained directly from the instruments and factors themselves (e.g., strategies such as straddles and spreads).

This reading deals with options, mainly focusing on options on individual stocks, although the principles apply equally well to options on any other instruments. Reading 17 looks at the principles and uses of futures and forward contracts. Reading 18 is concerned with currency management, beginning with the various approaches to currency along the passive-active spectrum. It then discusses active currency strategies (including volatility trading via options), before considering currency hedging using futures and forwards (mainly the latter), and options.

The sequence of content in our coverage of this reading differs from the LOS order. We start by looking at the payoffs and profits associated with holding option positions to expiration. Because value at expiration is purely reflective of intrinsic value, the calculations involved are simple (but highly examinable, so worth getting clear before the complicating issue of time value is addressed). Only then do we move on to the more theory-heavy areas associated with time value—the option “Greeks” and strategies derived from them.

### MODULE 16.1: OPTIONS BASICS—VALUE AT EXPIRATION AND PROFIT AT EXPIRATION



#### PROFESSOR'S NOTE

Options have already been covered at the previous levels, of course, so the material in this first module is largely review. However, we recommend that you don't skip it, as it is vital to everything that follows.

In particular, distinguishing between option value and profit (respectively pre- and post-initial premium), and the graphical representation of how they

vary with differing values of the underlying price, is very helpful when we move on to analyze more complex strategies.

## A Refresher on Options Terminology

Here is a refresher on calls and puts:

- A *call* is a right to *buy*.
- A *put* is a right to *sell*.

Each option contract will specify the **underlying** to which the right relates:

- Underlyings include stocks and stock indexes, bonds and bond futures, currencies, commodities, and more abstract factors such as stock volatility.

The contract will specify the **exercise (strike) price** at which the right can be exercised, and the **expiration (expiry) date** (and time) at which the right can be exercised (or not):

- **European-style options** may only be exercised at the point of expiration, while **American-style options** may be exercised on any trading day up to and including the point of expiration.
  - Note that European style and American style are just labels for the two main styles of option and have nothing to do with where the options are traded (there are other, more exotic, styles, such as Bermudan, but the details of such exotics are beyond the scope of the syllabus).

The buyer of an option pays a **premium** (the value of the option) to the seller:

- The *buyer* (who takes the **long position** in the option) has the right.
- The *seller* (taking the **short position**) receives the premium as payment for taking on the contingent liability associated with the buyer's right.
  - In the case of a **call option**, the short has undertaken to deliver the underlying if the buyer chooses to exercise (receiving the strike price in exchange).
  - In the case of a **put option**, the short has undertaken to take delivery of the underlying if the buyer chooses to exercise (paying the strike price).

## Symbols and Formulas



### PROFESSOR'S NOTE

We must minimize the use of formulas, where possible. The curriculum text does include some formulas and, if they help your understanding, learn and use them. However, our experience is that it is more reliable to focus on the underlying principles embedded in the formulas. None of the strategies tested are greatly complex, and in all cases, answers can be determined from the basic principles of in/out the moneyness that follow in the next section.

When symbols are used, we will follow the notation in the curriculum:

- $X$  = the **exercise** (strike) price.
- $S$  = the underlying (**s**tock) price.

- $p$  and  $c$  = the prices (premiums) of the **p**ut and **c**all options.
- Subscripts on  $S$ ,  $p$ , and  $c$  will stand for time, with  $0$  = the point at which the position is entered and  $T$  = option expiration.

## Intrinsic Value and Time Value

At any point in time, any given option will have a value. This is set, as are all values, by supply and demand, but is likely to be determined by reference to one of the many option pricing models, of which the Black-Scholes-Merton (BSM) was the first (introduced in 1973), and is still widely used.

The key determinants of an option's value are:

- The strike price.
- The current level of the underlying (e.g., stock price, currency rate).
- The remaining time to expiration.
- The volatility of the underlying (the *expected* annualized standard deviation of the underlying over the period to option expiration).
- The annualized risk-free interest rate over the period to expiration.
- The annualized yield expected from the underlying (if any) over the period to expiration.
- Whether it is European style or American style (in principle, the latter might be worth more because they give the right to exercise before expiration, in addition to at expiration).

Market participants may not agree on what an option is worth—most likely because they disagree on the appropriate figure to use for volatility. However, note that all options that trade on exchanges will have a value, which is reflective of the consensus at that point in time. The current value of an option can be used to infer the consensus estimate of volatility for the underlying, known as **implied volatility**. This is done by working backward through a pricing model, given the other factors can be directly observed.

Note that implied volatility is not the same as **historical (realized) volatility**, which is the square root of the *actual* realized variance of returns to date.

It is important to note that the volatility that is used to determine the option value is an estimate of the volatility **looking forward**, which is not the same as actual movement in the stock price. For example, the implied volatility for a stock option could well rise, even though the stock price is currently stable, if the consensus view changes on the potential for price moves during the period to expiration.

The value of an option can be decomposed into its intrinsic value and its time value, the total premium being the sum of these two:

- **Intrinsic value** is the value of immediate exercise.<sup>1</sup> It reflects the degree to which the option is in the money (ITM).
- **Time value** is the additional value reflective of *what might happen* between now and the point of expiration (i.e., over the option's remaining life).

An option is ITM if the long would derive a benefit from immediate exercise:

- *A call option is ITM if the current price of the underlying > strike price, so the long has the right to pay less than the current market price for the underlying.*

The intrinsic value in such a case equals the underlying price minus the strike price (the extent to which the underlying price exceeds the strike price, which is the amount the long could gain by exercising their right, then immediately selling the underlying in the market). Note that here, and throughout, we will ignore transaction costs.

- *A put option is ITM if the current price of the underlying < strike price, so the long has the right to receive more than the current market price for the underlying.*

The intrinsic value in such a case equals the strike price minus the underlying price (the extent to which the strike price exceeds the underlying price, which is the amount the long could gain by buying the underlying in the market, then immediately exercising their right to sell at the strike price).

Note that the intrinsic value is not the same as the profit to the long, which would have to factor in the premium that the long originally paid for the option. This means that it is perfectly possible for an option to be ITM, but for exercise to result in a loss to the long (if the intrinsic value < initial premium paid).

Note also that we are not saying that the long will *choose* to exercise, just that (ignoring premium paid) exercise would lead to a gain.

An option that is not ITM will have zero intrinsic value. It could be at the money (ATM), with the underlying = strike price, or out of the money (OTM):

- *A call option is OTM if current price of the underlying < strike price.*
- *A put option is OTM if current price of the underlying > strike price.*

At any point before expiration, an option also has time value, which reflects what might happen over its remaining life. This is a much more complex concept, which explains why the first option pricing formula only appeared in 1973. Time to expiry, volatility, the risk-free rate, and the yield on the underlying all have a part to play, in addition to the underlying price and the strike price.

The details of pricing models are beyond the scope of the Level III curriculum—you will not be plugging figures into the BSM model, for example—but a couple of general principles are worth remembering, namely that with all other factors held constant:

- *Higher volatility means higher option premiums (both for calls and puts).*
- *Less time to expiry means lower option premiums (both for calls and puts).*

## **Data for Examples**

For most of the examples in this reading, we will use the following options on XYZ stock (current stock price = \$52.14). The premiums are quoted as of “now” (assumed to be 20 March), and the April, May, and June expiration dates are respectively 31, 61, and 91 days in the future. The risk-free interest rate is 3%, and volatility has been assumed to

be a constant 60% (we will see later that this is unrealistic, but this is not in itself a problem). The XYZ stock pays no dividends.

Each option contract is a right over 100 shares, but this table shows prices per share (in \$), and we will work in per-share terms, unless otherwise stated:

Call Price			Strike Price	Put Price		
APR	MAY	JUN		APR	MAY	JUN
4.80	6.26	7.40	50	2.53	3.87	4.88
3.53	5.05	6.22	52.5	3.75	5.14	6.19
2.52	4.02	5.20	55	5.24	6.61	7.65

We refer to the May expiry call with a strike price of 50 as the MAY 50 call, for instance.



### PROFESSOR'S NOTE

We will initially be limiting ourselves to evaluating values and profits at expiration. This simplifies things because at expiration, there will be no time value—only intrinsic value (which may be referred to as the option's payoff).

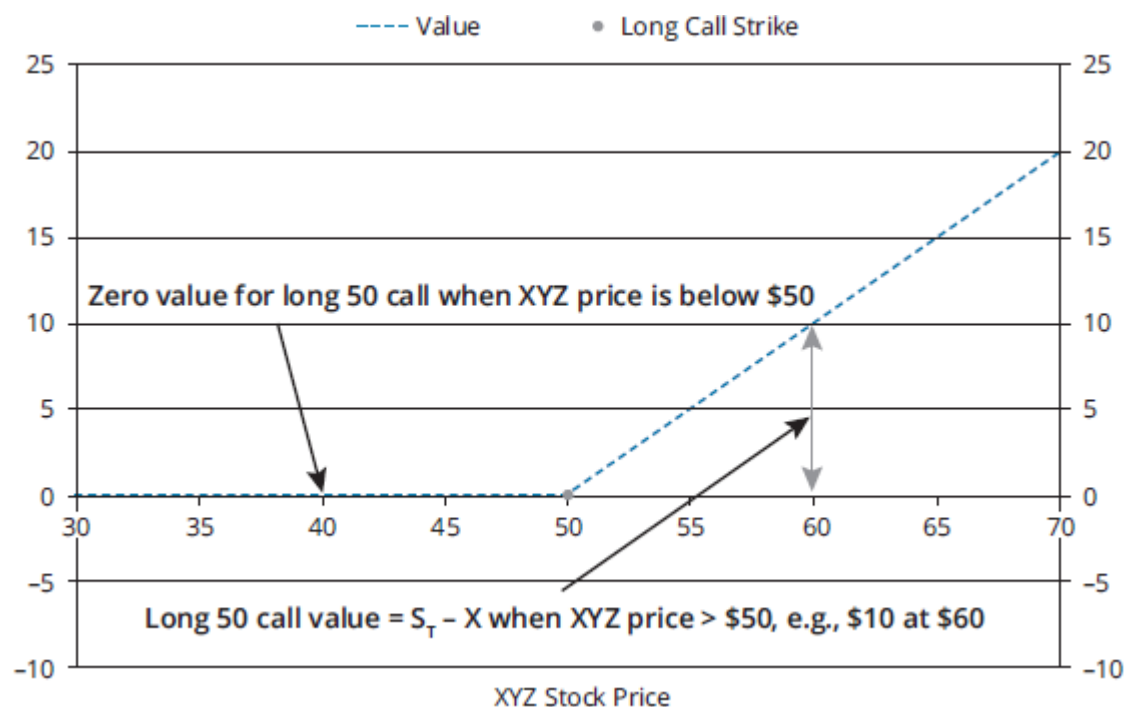
## Basic At-Expiration Payoff Diagrams for Calls and Puts

### Calls

Let us use the example of a long call to illustrate the way in which option values and profits can be depicted graphically.

Consider an investor who buys (goes long) an XYZ MAY 50 call, paying the \$6.26 premium.

At the May expiration the option will either be ITM or OTM, dependent on whether the stock price then is above or below \$50. Below \$50 it will be OTM, with no (intrinsic) value, while above \$50, the intrinsic value will equal stock price – \$50:



In all such diagrams, the horizontal axis represents the value of the underlying, while the vertical axis represents the value or profit of the position [which it is will be clear from the labelling of the line(s)] corresponding to that underlying value.

For example, if the XYZ stock price at expiry is \$40 then the 50 call will expire OTM, with zero value, while if the stock price at expiry is \$60 then the 50 call will expire ITM, with a value of  $\$60 - \$50 = \$10$ .

The initial cost of the option was \$6.26 (per the table), so the profit at expiration will equal the value of the call minus \$6.26, implying:

- If XYZ stock price = \$40, profit =  $\$0 - \$6.26 =$  loss of \$6.26.
- If XYZ stock price = \$60, profit =  $\$10 - \$6.26 =$  \$3.74.

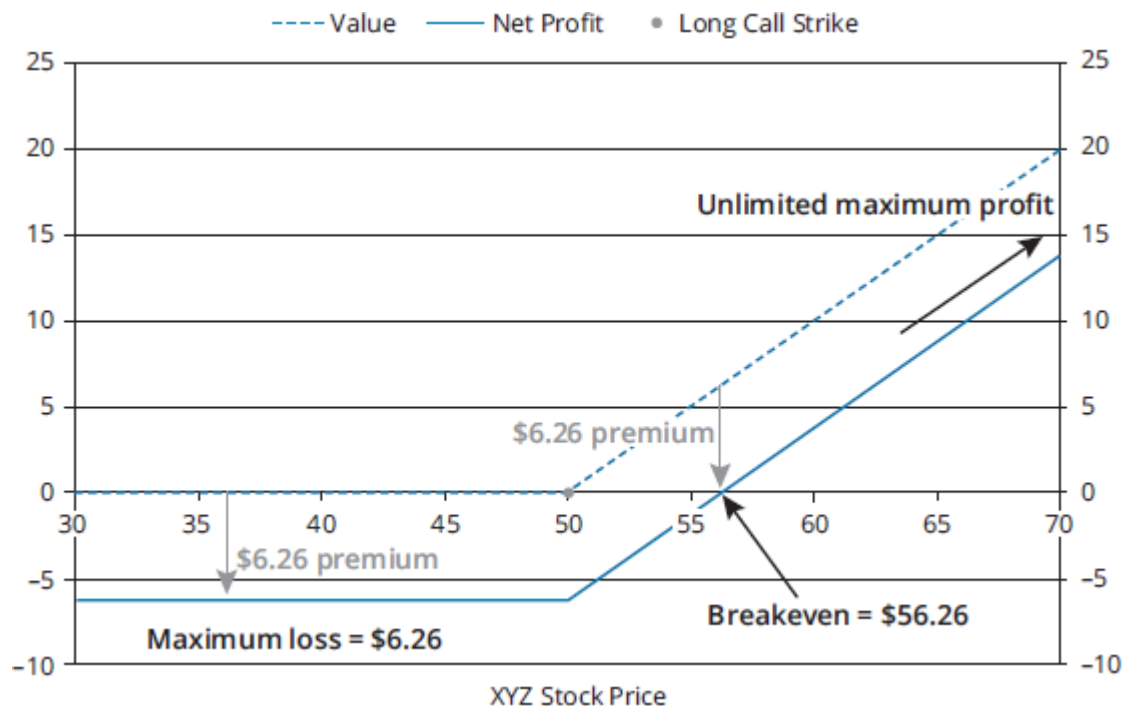
Overall, the profit line will be the value line shifted downward uniformly by the \$6.26 initial premium.

As a rule, for each and every strategy we consider, the profit line will be the value line shifted:

- *Downward* by the amount of the (net) initial premium – if the (net) initial premium is an outflow (as here).
- *Upward* by the amount of the (net) initial premium – if the (net) initial premium is an inflow.

This means that if we know the shape of the value line for a strategy, the profit line will have exactly the same shape.

For the long XYZ MAY 50 call:



It is clear that the maximum loss from a long call occurs when the option expires OTM with zero value, thus equals the premium paid.

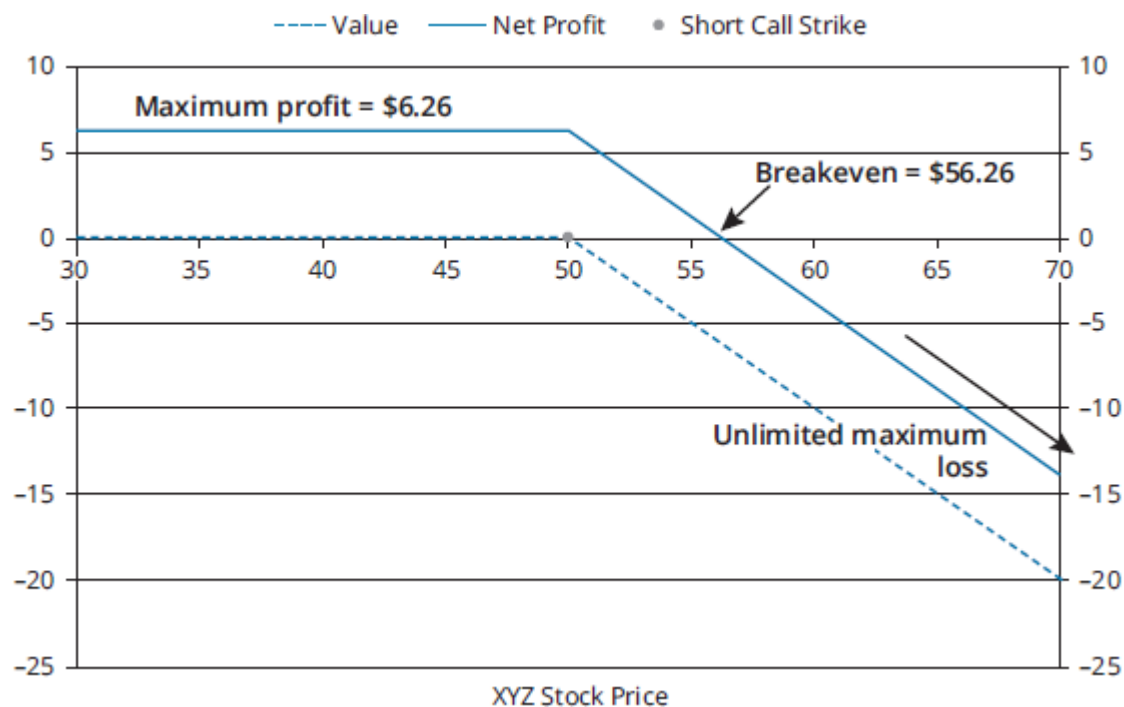
The long call position will break even at expiration if the value at expiration is exactly equal to the premium paid. This will happen when the stock price expires at the sum of the strike and the premium,  $\$50 + \$6.26 = \$56.26$  as shown on the previous diagram.

A long call has no maximum profit—the higher the stock price at expiry, the higher the profit on the call, with no upper limit.

The diagrams for a short call are identical, except that plus values, vertically, become minus, and vice versa (because, in the absence of transaction costs, a positive result for the long is a negative result for the short, and vice versa; in the jargon, it is a zero-sum game).

This means that equivalent long and short positions will have identical breakeven values for the underlying, while their maximum losses and profits will just swap around.

The short XYZ MAY 50 call has value and profit at expiration as here:



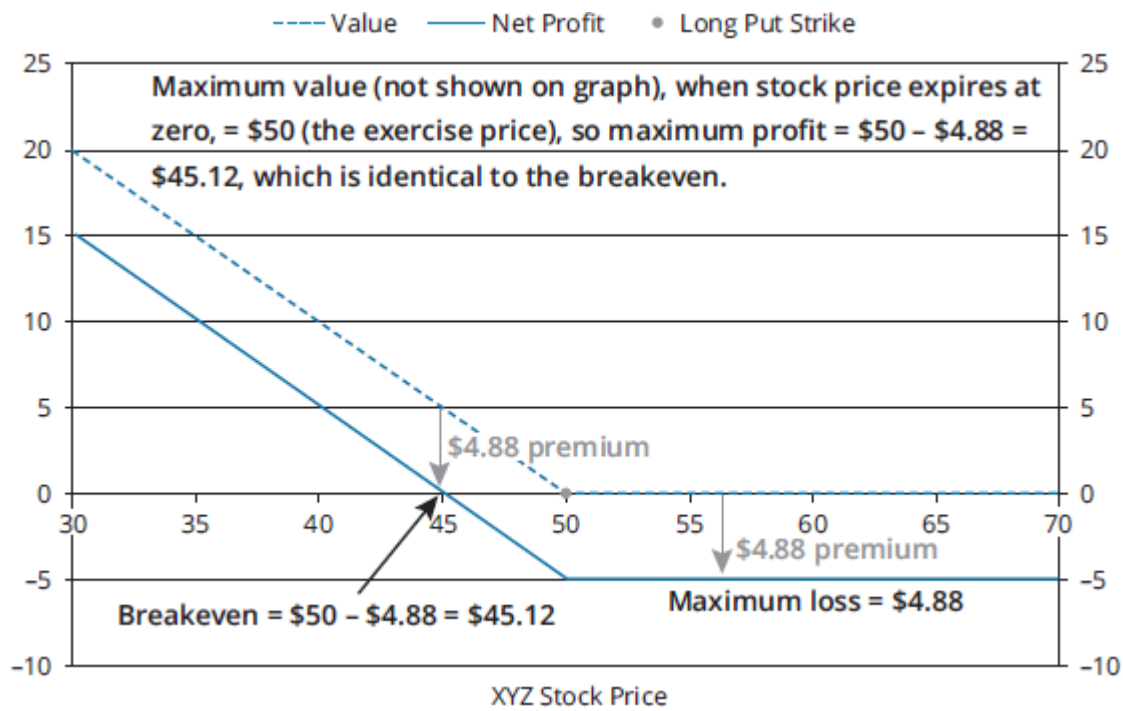
The basic motivation for buying a call is to profit from a rise in the underlying price, while limiting the downside.

When a call is sold (without any hedging position in place), then the position is described as a **naked (uncovered) call**, and limited upside from falls in the underlying price is balanced against unlimited potential losses from the underlying rising.

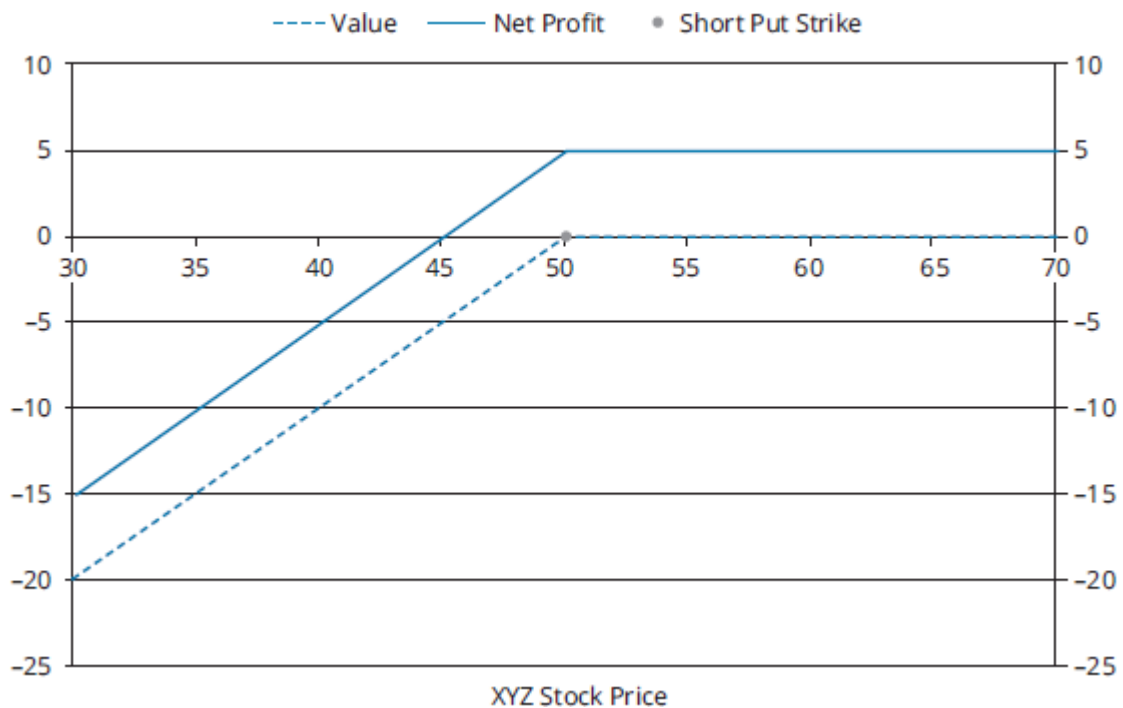
### **Puts**

Puts are ITM on expiry when the underlying value ends below the strike price. This means that the graph for a put exposure will look like the call graph with left and right reversed.

For example, a long XYZ JUN 50 put (initial premium = \$4.88) at expiration:



Here is the corresponding short XYZ JUN 50 put at expiration:



Confirm that you understand why the short XYZ JUN 50 put has maximum profit at expiration of \$4.88, and breakeven = maximum loss = \$45.12.

The basic motivation for buying a put is to profit from a fall in the underlying price, while limiting the downside.

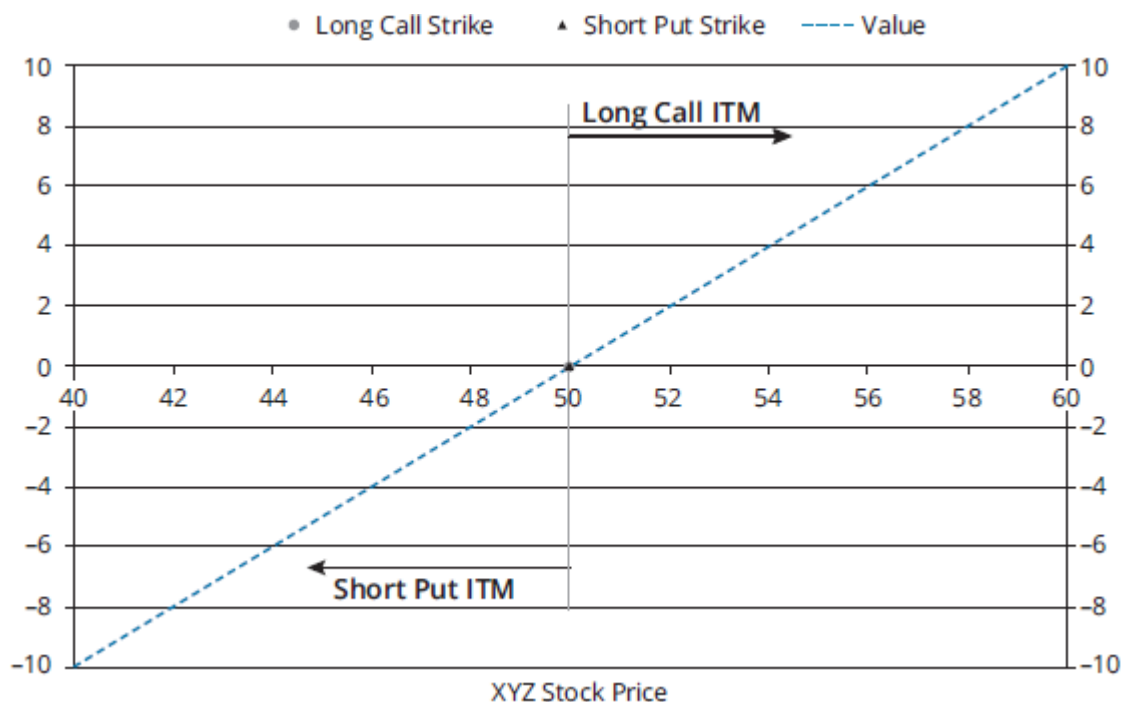
When a put is sold<sup>2</sup>, limited upside from rises in the underlying price is balanced against large (although limited) potential losses from the underlying falling.

## MODULE 16.2: SYNTHETIC POSITIONS USING OPTIONS

### LOS 16.a: Demonstrate how an asset's returns may be replicated by using options.

If we combine a long call with a short put (both on the same underlying, with the same strike price and expiration) then we create a synthetic long forward position.

For example, here are the values at expiration from being long an XYZ 50 call and short an XYZ 50 put:



For values of the underlying above 50, the long call expires ITM (while the put is OTM), giving positive value, while if the underlying is below 50, the short put expires ITM (the call is OTM), giving negative value (it is exercised by the counterparty). Whatever happens to the stock price this position gives the same payoff at expiration as does an identical-maturity long forward contract on XYZ at 50—both result in buying the stock for 50.

- In symbols, the value at expiration =  $S_T - X$ .

Suppose both options were for May expiration. The premium paid for the call would have been \$6.26, while the premium received on the put would have been \$3.87, for a net initial payment of  $\$6.26 - \$3.87 = \$2.39$ . The profit line would thus be \$2.39 below the value line. The breakeven at expiration for the position is  $\$50 + \$2.39 = \$52.39$  (the call would be \$2.39 ITM at this stock price, just covering the net premium paid).

This profit calculation has ignored the time value of money, as we do throughout this reading when we calculate net profits, but in this section let us be a bit more accurate. The premiums are paid “now” (assumed to be 20 March), whereas the value at expiration is in May, 61 days later, so we should not really just net them off.

As an alternative to buying the call and selling the put, consider buying the underlying XYZ stock in March (for \$52.14) and holding it to the May expiration date. If we simultaneously borrow the PV of the strike price then at the May expiration date we will end up with a position with a net value exactly the same as the value of the long call + short put position we just examined: we will be able to sell the stock for the stock price at expiration and will have repaid the borrowing (the amount to repay will be the strike price, because the amount borrowed was its present value), leaving us with  $S_T - X$ , as before.

Because these two positions end up with identical values, irrespective of the stock price at expiration, they must cost the same, so:

- Call premium (paid initially) – put premium (received initially) = initial stock price paid – PV(X) received.
- In symbols,  $c_0 - p_0 = S_0 - PV(X)$ , which can be rearranged to  $S_0 + p_0 = c_0 + PV(X)$ .

This, of course, you will recognize as the **put-call parity** relationship. Note that this version of the put-call parity formula assumes that the underlying pays no yield (during the period to expiry).

In this case, we have  $c_0 - p_0 = \$6.26 - \$3.87 = \$2.39$ . The risk-free interest rate is 3%, so  $PV(\$50) = \$50 / (1.03)^{61/365} = \$49.75$ , and the equation works, because  $S_0 - PV(X) = \$52.14 - \$49.75 = \$2.39$ .

Were PV(X) exactly equal to  $S_0$ , then put-call parity tells us that the call and put should have identical premiums (because  $c_0 - p_0$  would equal zero). X in that situation would be the fair price for a forward contract.

**Put-call forward parity** substitutes  $PV(F_0(T))$  in place of  $S_0$ , where  $F_0(T)$  is the forward price for a contract that matures at the same time as the options expire, giving  $PV(F_0(T)) + p_0 = c_0 + PV(X)$ . Given that cash-and-carry arbitrage means that the fair forward price for an underlying that pays no yield equals  $FV(S_0)$ , and  $PV(FV(S_0)) = S_0$ , this is just a restatement of standard put-call parity.

#### **EXAMPLE: Synthetic long forward position**

Gavin Ennis is a dealer who has just sold a four-month forward contract on AlphaCo stock to a client who will thereby purchase 1,000 shares of the stock for 179.59. AlphaCo's current share price is 179, and AlphaCo will not be paying a dividend during the next four months. The annualized interest rate is 1%, and AlphaCo's 179.59 calls and puts are both currently trading at 16.34 per share.

**Explain** how Ennis could hedge his short forward position using a synthetic long forward position, and **explain** what happens at expiry if the AlphaCo share price is above or below 179.59.

#### **Answer:**

Ennis should purchase a 179.59 call and sell a 179.59 put (both on 1,000 shares) with expiration matching the maturity of the forward contract. The net premium for these options will be zero.

At forward contract maturity, whatever happens, Ennis will have to sell the 1,000 shares to his client and receive  $179.59 \times 1,000$ . This is also the expiry point of the options.

If the share price is above 179.59 then Ennis will exercise the call, which is ITM, and purchase 1,000 shares; if the share price is below 179.59, then the put counterparty will exercise the put (ITM) and sell 1,000 shares to Ennis. In either case, Ennis buys 1,000 shares for 179.59 per share, which precisely offsets his obligation under the forward contract.

## MODULE 16.3: COVERED CALLS

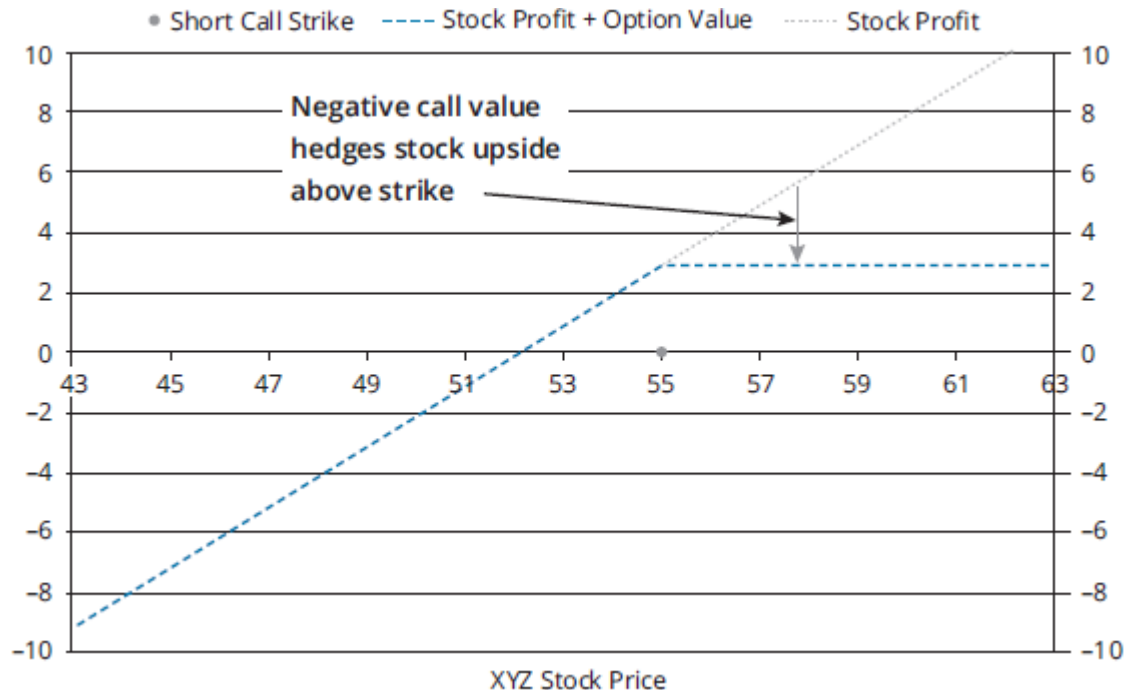
**LOS 16.b: Discuss the investment objective(s), structure, payoff, risk(s), value at expiration, profit, maximum profit, maximum loss, and breakeven underlying price at expiration of a covered call position.**

### Covered Calls With Extra Yield the Main Focus

Suppose an investor has a long position in XYZ stock on 20 March. They think that the stock has limited upside over the next month, and are prepared to sell off upside above \$55 (\$2.86 above the 20 March stock price of \$52.14).

The classic way of doing this is to sell a call (a **covered call**, because the risk of the short option position is hedged by ownership of the stock), in this case an XYZ APR 55 call. This will give premium income of \$2.52 (per share) in March.

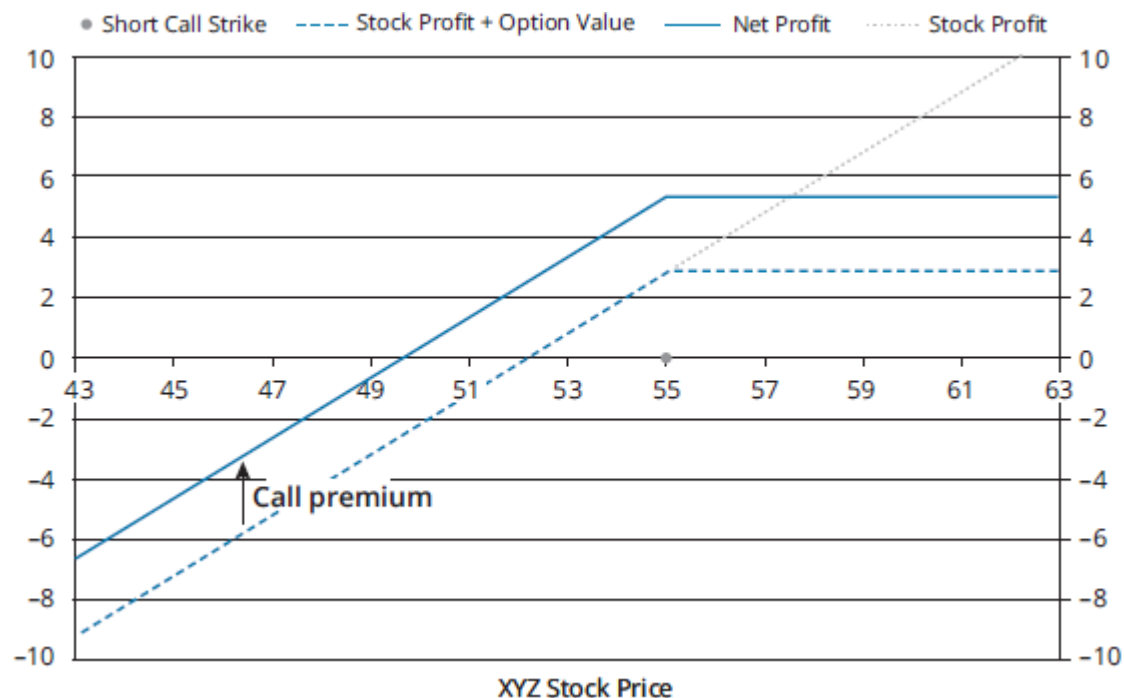
At expiration, if the XYZ stock price is above \$55, then the call will be exercised by the counterparty and the investor will be obliged to sell the stock to them for \$55. If the stock price is below \$55, the call will expire OTM and unexercised, so the investor continues to hold the stock. Ignoring the call premium received, this means the gain/loss associated with holding the stock is capped for stock prices above \$55:



An equivalent way of thinking about it is that below \$55, the call has zero intrinsic value, so adding this to the original stock gain/loss leaves us as we were, whereas above \$55 the call's intrinsic value is the stock price minus the strike price (with a minus sign in front, because it is short). Thus, any gain on the stock above \$55 is precisely offset by the increasing negative value of the short call.

At \$55, the stock has risen by \$2.86, and this is thus the maximum gain (ignoring the call premium). Note also that, ignoring the call premium, the breakeven point is the original stock price of \$52.14.

Taking account of the \$2.52 call premium received takes us to the overall net profit/loss line:



The net profit line is the stock gain/loss (as modified by the call intrinsic value) shifted uniformly upward by the call premium received.

The maximum profit equals  $\$2.86 + \$2.52 = \$5.38$ , while the breakeven is  $\$2.52$  lower than it was without the premium received, which is at  $\$52.14 - \$2.52 = \$49.62$  (up to a  $\$2.52$  fall in the stock price is cushioned by the call premium).

Notice that the profit line has the same general shape as a short put and, as for a short put, the maximum loss is the same as the breakeven (because the loss increases one-for-one below breakeven, but the stock price cannot fall below zero). Thus, maximum loss =  $\$49.62$ .

Because the investor holding the stock believed the stock had limited upside over the month, they have turned upside potential (which they did not need) into cash in hand. They will only end up worse off if the stock price at expiry exceeds  $\$55 + \$2.52 = \$57.52$ , which is the level at which the original stock gain/loss line cuts through the net profit line.

In general, for a covered call:

- maximum profit at expiry =  $X - S_0 + c_0$
- breakeven stock price at expiry = maximum loss at expiry =  $S_0 - c_0$

The motivation in the previous example of a covered call was earning extra yield (the focus was on the premium income).

There are two other likely motivations: reducing a position at a favorable price and target price realization. Let us look at each in turn.

## Reducing a Position at a Favorable Price

A second scenario where covered calls might be written is when an investor holds a position in a stock and intends to reduce that holding in the near future. For example, Jenkins might hold 5,000 shares in XYZ on 20 March (share price = \$52.14), but plans to dispose of 1,500 shares. She might simply sell 1,500 shares at \$52.14, realizing \$78,210, but instead could write 15 exchange-traded XYZ April 50 call contracts (on 1,500 shares), receiving a total premium of  $1,500 \times \$4.80 = \$7,200$ . Note that the options are currently ITM.

Provided the share price at the April expiry is no lower than \$50, the options will get exercised, and Jenkins will be obliged to deliver 1,500 shares for  $1,500 \times \$50 = \$75,000$ . Adding the premium already received to this brings the total proceeds to  $\$75,000 + \$7,200 = \$82,200$ , which exceeds the proceeds had she simply sold at the market price on 20 March.

However, there is a risk: if the XYZ price at expiration is lower than \$50 then the calls will not be exercised and the shares will not be sold—the opportunity to sell at the current favorable price will have been missed.<sup>3</sup>

## Target Price Realization

A third motivation is realizing a target price. In this case, calls are written with a strike just above the current market price. The idea is that the investor believes the stock should be worth a bit more than its current price and would be happy to sell it at that slightly higher price. For example, Perkins holds XYZ shares at \$52.14 and writes APR 52.5 calls, receiving \$3.53 per share. If the calls are exercised in April, then the shares are sold at the \$52.50 strike price, so a total per share of  $\$52.50 + \$3.53 = \$56.03$  has been realized.

The dangers are twofold. First, the stock price may rise substantially, in which case Perkins would regret having to sell at \$52.50, rather than the higher market price. Second, the stock price might decline, and the opportunity to sell at the current level will have been missed.

Note that this use of covered calls is best seen as a hybrid of the previous two.

The observable difference between these three uses of covered calls is the value of the strike relative to the current stock price:

- For yield enhancement, the calls are OTM (possibly substantially so).
- For reducing a position at a favorable price, the calls are ITM.