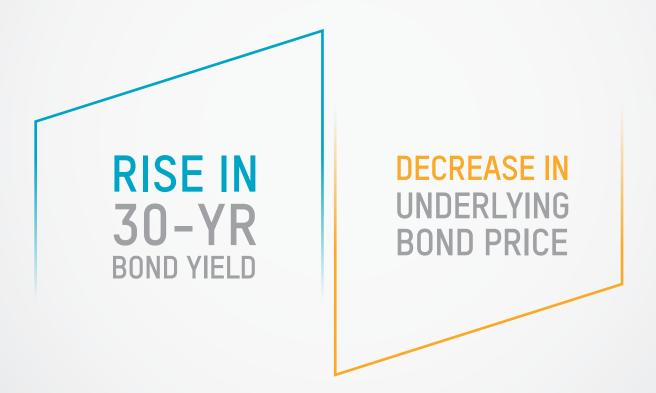


### OPTIONS ON U.S. TREASURIES STRATEGY GUIDE

U.S. Treasury note & bond prices move inversely with yields. Accordingly, a rise in yield on the U.S. 10-YR note and the U.S. 30-YR bond would reflect a decrease in the underlying note/bond price. No different than holding stocks, investors holding U.S. Treasury bonds may experience significant price movements to the upside as well as downside. Investors who choose not to hold U.S. 10-YR note or a 30-YR U.S. Treasury bond to maturity can use NASDAQ OMX PHLX U.S. Treasury note & bond options to hedge price risk.



For the sake of simplicity, the examples provided do not take into consideration commissions and other transaction fees, tax considerations, or margin requirements, which are factors that may significantly affect the economic consequences of a given strategy. An investor should review transaction costs, margin requirements and tax considerations with a broker and tax advisor before entering into any options or futures strategy. Options and futures involve risk and are not suitable for everyone.

Prior to buying or selling an option, a person must receive a copy of Characteristics and Risks of Standardized Options. Copies may be obtained from your broker, one of the exchanges or The Options Clearing Corporation, One North Wacker Drive, Suite 500, Chicago, IL 60606 or call + 1 888 OPTIONS or visit WWW.8880PTIONS.COM.

Any strategies discussed, including examples using actual securities and price data, are strictly for illustrative and education purposes and are not to be construed as an endorsement, recommendation or solicitation to buy or sell securities. Supporting documentation will be supplied upon written request. All options and futures can lose value.

#### HEDGING A RISE IN U.S. TREASURY YIELDS

# RISING RATES: PUT OPTIONS ON 30-YR BONDS

#### **EXAMPLE ONE**

A purchaser of a U.S. 30-YR bond at government auction (herein referred to as the "On-the-Run" or "OTR" bond or note) is concerned about a sharp rise in yields due to economic events unfolding over the next few months. Although OTR securities help investor diversification via fixed income, there is a real element of portfolio risk.

After the most recent OTR auction, the U.S. 30-YR 2.75% maturing on 11/15/2042 is trading at a price of 99.00, down from the auction price of 100.00. This means for the investor who purchased \$10,000 face value of the OTR 30-YR, that the current market value is \$9,900 or a decrease of 1.00%. To protect against a further rise in yield and corresponding price drop, an investor may elect to purchase a put option. With the U.S. 30-YR bond market trading at a price level of 99.00, the investor chooses to purchases a 99 put option with two months till expiration for a premium cost of 2.15 or \$215 per \$10,000 face value owned.

In the event yields rise sharply, the investor is hedged during the two-month expiration window. If bond prices fall to 90.00, the investor who spent \$215 on put premium can sell the bond at 99.00 to avoid a further 9.00 point loss (\$900). However, if yields fall, the bond price will rise in value benefitting the investor. If at expiration, the bond price is greater than 99.00, then the investor will lose the total \$215 out-of-pocket cost for the put premium.

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#### YIELD ENHANCEMENT STRATEGY

#### **EXAMPLE TWO**

A purchaser of a U.S. 10-YR OTR note at government auction believes rates will be stable over the next two months and would like to generate income without incurring additional position risk.

After the most recent OTR auction, the U.S. 10-YR 1.625% maturing on 11/15/2022 is trading just below par (100.00) at a price of 99.70. This means for the investor who purchased \$10,000 face value of the OTR 10-YR, that the current market value is \$9,970 or a decrease of .30%. To generate additional income and at the same time protect against a slight price drop, an investor may elect to sell a call option. With the current U.S. 10-YR price level, the investor chooses to sell an at-the-money (ATM) call struck at 99 with two months till expiration for a premium credit .59 or \$59 per \$10,000 face value owned.

In the event yields rise at expiration, the investor has a slight hedge during the two-month expiration window. For example, if note prices fall to 97.00, the investor would experience a market value decrease of \$300 to \$9,700. However, the ATM (99) call would expire and the call premium credit of \$59 belongs to the investor. In this example, the investor could elect to sell another call for one, two, or three months to generate additional income. In the event yields fall at expiration, the investor's U.S. 10-YR note might be subject to being called away. Accordingly, the investor may elect to participate in another government auction.

## STABLE RATES: COVERED CALL OPTIONS ON 10-YR NOTES

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#### SHORT TERM FALLING RATES STRATEGY



#### **EXAMPLE THREE**

An investor believes rates on the U.S. 30-YR 0TR bond will fall due to government economic statistics, e.g. unemployment figures, to be released in a few days (bond prices will rise). The investor sees an opportunity to participate in the contemplated rate move using a call spread as a replacement for outright ownership of the U.S. 30-YR 0TR bond.

After the most recent OTR auction, the U.S. 30-YR 2.75% maturing on 11/15/2042 is trading at a price of 99.00, down from the auction price of 100.00. The investor decides to purchase a one-month ATM call struck at of 99 for 1.23 points and sell a one-month out-of-the-money (OTM) call at a strike of 101 to collect a premium of .51 points. This trade, commonly referred to as the 99/101 call spread results in the investor paying out of pocket .72 points (1.23 - .51) or \$72 per call spread.

At expiration, if rates have fallen, the corresponding U.S. 30-YR OTR must be priced at 99.72 for the investor to break even (lower call strike of 99 plus .72 points premium paid). As a result of placing this strategy, the investor maximum risk is .72 points (\$72) and the maximum gain is 1.28 points (\$128) or the difference between the two strikes (101 – 99) less premium paid.

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