

# Protected Options

## An Alternative to Covered Writing Using Cash-Settled Index Options

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### KEY TAKEAWAYS

#### ▶ Margin Relief and Strategy Flexibility

New margin relief rules allow investors to write cash-settled index options against ETFs with the same underlying index. This “protected option” writing strategy enhances capital efficiency and trading flexibility compared to traditional ETF options, potentially reducing costs. This is akin to covered call writing but applies to cash-settled index options written against ETFs. Both strategies offer similar risk/reward profiles, with the main difference being the settlement type and potential tax treatment advantages for index options.

#### ▶ Advantages of Index Options

Index options are advantageous due to cash settlement and European-style exercise, reducing the risk of early assignment and providing easier position management.

#### ▶ Risk Mitigation and Income Generation

Similar to covered calls, protected options strategies generate income through premiums received from selling index options. They help mitigate downside risk in ETF positions by offsetting losses with option premiums, thus potentially enhancing overall portfolio returns.

### Maximizing Opportunities with Protected Options

Approved by the SEC, FINRA and Cboe’s margin relief rule offers enhanced margin treatment when writing, or selling, a cash-settled index option in a margin account against an exchange-traded fund (ETF) that is based on the same underlying index, known as “Protected Option” writing or selling. Now, investors have an attractive alternative to ETF options to manage their long ETF positions. Index options are cash-settled so in the event of assignment, a related long ETF position would not be sold and there is no disruption to the long position in the ETF. Standard ETF options are physically settled so the investor’s ETF call options would be settled with a sale of the long position in the ETF at the exercise price. Additionally, index options offer European style exercise, so assignment can’t occur prior to expiration, making it easier to manage positions.

### Understanding Protected Options Writing and Covered Call Writing

Covered call writing strategies (also known as buy-write strategy) and protected options writing strategies can offer a stream of incremental income in the form of options premiums while reducing downside risk in a portfolio. Both protected option writing and covered call writing provide income through the premiums received from selling the call option and both involve a limit on the potential upside of a long ETF position (e.g., IVV, SPY or VOO). For both strategies, there is downside risk on a long ETF position, however it is offset to the extent of the option premium income received.

- **Protected Option Writing:** A protected options strategy involves owning an ETF in a margin account while simultaneously selling a cash-settled index option on that ETF. Both the option and ETF must be based on the same index. Protected option writing and covered call writing are very similar from a risk / reward perspective.
- **Covered Call Writing:** A covered call writing strategy involves owning the underlying security (e.g., IVV, SPY, or VOO) while simultaneously selling a call option on the same asset, in this case the ETF.

It is important to note the assignment differences between protected options and covered call writing. ETF options are typically American Style Exercise allowing holders of a call the ability to exercise the right to receive the delivery of an ETF anytime during the life of the contract. The sellers of an ETF call written against a long ETF position will have their ETF automatically sold at the exercise price in the event of assignment. With protected options call writing, an index option with European Style Exercise can only be exercised at expiration removing a risk of early assignments. The cash-settlement feature of an index call option provides for a debit to the account equal to the difference in the index settlement value and call exercise price upon assignment. The ETF position is therefore not sold in the case of assignment.

With a protected option strategy, assignment is not driven by the price of the ETF, it is driven by the level of the index. Typically there is always a slight difference between an ETF price and index level. Therefore, it is highly unlikely that an investor would be able to achieve the exact same assignment outcome of a traditional covered call writing strategy using a protected options strategy because of the constant, slight difference between an ETF price and the index level.

Nonetheless, there are potential advantages to using a protected option strategy. Notably, the margin relief provided under the new rule offers an opportunity to enhance the traditional covered call writing and harness greater utility using cash-settled index options.

## Advantages of a Protected Options Strategy

Writing cash-settled index options, like XSP® calls, can be more advantageous than writing covered calls, such as IVV calls on an IVV ETF.

### Protected Options Strategy: Writing XSP Calls

#### Cash Settlement

XSP calls are cash settled – if assigned, IVV holding would not be sold.

IVV remains intact to support additional XSP call writing and for receipt of dividends.

#### European Style Exercise

Can be exercised only at expiration. No risk of assignment prior to expiration. Facilitates easier management of positions.

### Covered Call Strategy: Writing IVV Calls

#### Physical Settlement

IVV calls are physically settled – if assigned, IVV holding would be sold at the exercise price.

Another purchase transaction, likely with transaction costs, would be necessary to reestablish IVV holding.

#### American Style Exercise

Can be exercised at any time prior to expiration.

## PROTECTED OPTIONS USE CASE: XSP

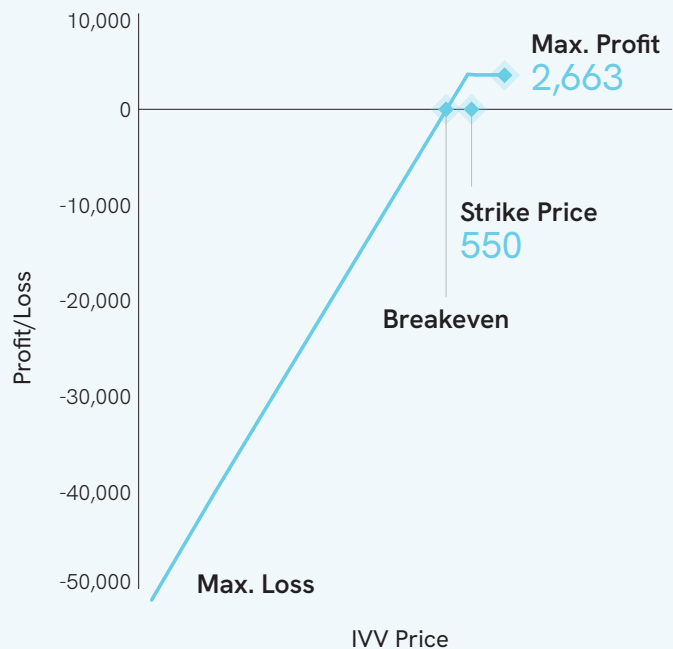
To illustrate the effectiveness of protected options, let's compare two scenarios: protected options strategy (XSP calls vs. IVV holding) and covered call strategy (IVV calls vs. IVV holding).

| SCENARIO 1<br>Protected Options Strategy <sup>1</sup><br>Sell (write) an XSP call option with new protected options treatment |                               | SCENARIO 2<br>Covered Call Strategy<br>Sell (write) a covered IVV call option |                               |
|---|-------------------------------|---|-------------------------------|
| XSP at 529.71   |                               | IVV at 531.05   |                               |
| Buy:  | 100 IVV ETF at 531.05         | Buy:  | 100 IVV ETF at 531.05         |
| Sell (write):   | 1 XSP 64-day 550 Call at 7.17 | Sell (write):   | 1 IVV 64-day 550 Call at 7.68 |
| Premium Income Generated:   | \$717.00                      | Premium income generated:   | \$768.00                      |
| Short Call Margin Requirement:  | Protected                     | Short Call Margin Requirement:  | Covered                       |
| ***zero initially***  |                               | ***zero***  |                               |

Expiration P(L)



Expiration P(L)



<sup>1</sup> The aggregate underlying index value is 52,971 (529.71 x 100). IVV shares with a total market value of at least that amount must be held initially. Therefore, at least 100 shares are needed. 531.05 x 100 = 53,105.

An assumption in this example is that the IVV price maintains the same tracking error with XSP through expiration in percentage terms (XSP slightly below IVV), i.e., XSP being .99747 of IVV price.

The new beneficial margin rule enables this transaction on a protected basis with no margin requirement, avoiding a \$6,633.65 short call margin requirement when uncovered.

### Maximum Profit

|                                |                         |
|--------------------------------|-------------------------|
| XSP at or above 550            |                         |
| The combined P(L) if assigned: | \$2,752.00 <sup>2</sup> |
| 64-day pre-tax return:         | 5.18%                   |

<sup>2</sup> Buy 100 IVV ETF at 531.05 and make full cash payment for a total investment of \$53,105. Gain on IVV ETF, \$2,035, plus call premium received, \$717 equals \$2,752.  $\$2,752 / \$53,105 = 5.18\%$

### Breakeven

|                 |
|-----------------|
| IVV at \$523.88 |
|-----------------|

### Maximum Loss

|                                      |
|--------------------------------------|
| IVV at \$0                           |
| \$52,388                             |
| \$53,105 less \$717 premium received |

### Maximum Profit

|                                |                         |
|--------------------------------|-------------------------|
| IVV at or above 550            |                         |
| The combined P(L) if assigned: | \$2,663.00 <sup>3</sup> |
| 64-day pre-tax return:         | 5.01%                   |

<sup>3</sup> Buy 100 IVV ETF at 531.05 and make full cash payment for a total investment of \$53,105. Gain on IVV ETF, \$1,895, plus call premium received, \$768, equals \$2,663.  $\$2,663 / \$53,105 = 5.01\%$

### Breakeven

|                 |
|-----------------|
| IVV at \$523.37 |
|-----------------|

### Maximum Loss

|                                       |
|---------------------------------------|
| IVV at \$0                            |
| \$52,337                              |
| \$53,105 less \$768 premium received. |

## Highlights of Different Market Dynamics

### SCENARIO 1

#### Protected Options Strategy<sup>5</sup>

##### XSP rises, sold call is assigned:

Investor earns premium income from the sold XSP call.

- ◆ The IVV holding increases in value (from \$531.05 to \$551.40 per share).
- ◆ Any increase in the value of the IVV holding above \$551.40 is equally offset by an increase in XSP, which represents a cash-settlement debit amount on the sold call. Therefore, upside is capped at \$551.40.

##### XSP trends sideways, sold call expires:

Investor earns premium income from the sold XSP call.

- ◆ The IVV holding increases or decreases in value depending on its current price relative to its \$531.05 per share purchase price.

### SCENARIO 2

#### Covered Call Strategy

##### IVV rises, sold call is assigned:

Investor earns premium income from the sold IVV call.

- ◆ The IVV holding increases in value (from \$531.05 to \$550.00 per share).
- ◆ The IVV holding is sold at the \$550 strike upon assignment. Upside is capped at the \$550 strike.

##### IVV trends sideways, sold call expires:

Investor earns premium income from the sold IVV call.

- ◆ The IVV holding increases or decreases in value depending on its current price relative to its \$531.05 per share purchase price.

Investors should consult with their tax advisors to determine how the profit and loss on any particular option strategy will be taxed. Tax laws and regulations change from time to time and may be subject to varying interpretations.

## Correlation and Pricing Differences

**Correlation:** An equity index ETF is essentially a basket of stocks with the aim to hold each stock in the index in the same proportion represented in the index. As an example, the mix of stocks in the IVV ETF is managed to replicate the S&P 500 Index. IVV is highly correlated with XSP, which is XSP 1/10th the value of the S&P 500 Index. The traded price of IVV and the XSP value are not the same, nor do they track with each other exactly, but they are very close. The average difference during the more than six-year time period between January 16, 2018, through May 15, 2024, was \$1.08 with a standard deviation of \$.62.

For the same time period, the correlation of daily returns for the IVV closing price and XSP closing value was 99.8%. (R2 = 99.7%)

**Pricing Differences:** Because IVV options can be exercised at any time prior to expiration (American style), their price would be slightly greater than the price of a comparable (same exercise price and expiration) XSP option, which can only be exercised at expiration (European style).

There are slight differences in the price of IVV and the level of XSP. The IVV price is the reference for pricing IVV options, while the XSP level is the reference for pricing XSP options. This leads to slight pricing differences in the respective options. Also, the IVV price can be affected by the supply and demand dynamics of the market.

These pricing differences do not materially affect the efficacy of writing a cash-settled index call option against an ETF based on the same index.

## Protected Option Margin Treatment

At the time a protected option is established, the value of the ETF must equal or exceed the aggregate current underlying index value of the sold index option.

Thereafter, should the value of the ETF fall below the aggregate current underlying index value, the required margin must be equal to the **greater** of:

- the amount, if any, by which the total value of the ETF position is below 100% of the of the aggregate current underlying index value or
- the amount, if any, by which the aggregate current underlying index value is above the aggregate exercise price of the option (i.e., the assignment risk amount).

If margin equal to the assignment risk amount is not held and assignment occurs, a deposit of funds (or marginable securities) or liquidation of some securities would be needed to cover the assignment debit. Therefore, the possibility exists that some ETF shares could be sold.

If the total value of the ETF position falls below 95% of the aggregate underlying index value, the margin for the difference will no longer be allowed and an uncovered short option margin requirement will be triggered. Margin relief may be reestablished by purchasing or depositing additional shares of the ETF to bring the total value up to the aggregate current underlying index value.

## In Conclusion

The new margin rule represents an exciting development for the options market and provides an additional way for investors to incorporate cash-settled index options in their trading strategies. Index options can be an excellent trading and hedging tool, offering many unique advantages over existing alternatives. Index options allow investors with ETF positions to overwrite those positions with the ease of cash settlement, while potentially mitigating risks of early exercise and capitalizing on potential tax advantages. The new margin relief rule may also potentially free up capital for investors, which means more resources to allocate to other market opportunities to optimize trading outcomes.

Investors should speak with their broker to confirm if they will be offering protected option margin relief, as ultimately, clearing brokers have discretion over the margin that they offer to individual investors or institutions.

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