

## COMPARISON OF AFTER-TAX OUTCOMES OF OPTION WRITING STRATEGIES: COVERED CALLS VERSUS CASH-SECURED PUTS

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### **Abstract**

*This paper examines the tax implications of covered call and cash-secured put option writing strategies. Although both strategies are widely used to generate income, their tax consequences differ in timing and character of gains. The analysis shows that option premiums received by writers are generally taxed as short-term capital gains, while exercise and assignment events affect either the sale proceeds of existing holdings or the cost basis of newly acquired shares. Using a simplified numerical illustration, the study demonstrates that when options expire worthless, both strategies produce equivalent after-tax income. However, when options result in stock transactions, covered calls may accelerate the realization of capital gains on appreciated shares, whereas cash-secured puts defer gain recognition by reducing the basis of acquired stock until eventual sale. These differences have meaningful implications for after-tax performance and portfolio management. The paper highlights the importance of integrating tax considerations into option strategy selection and provides practical guidance for investors seeking to optimize after-tax outcomes in taxable investment accounts.*

*Keywords: covered call, put option, tax, options*

### **1. Introduction**

Option writing strategies such as covered calls and cash-secured puts are widely used by investors and financial advisors to generate income and manage portfolio entry and exit decisions. These strategies are commonly promoted as practical tools for enhancing returns or acquiring stocks at favorable prices. While their economic payoff structures are relatively straightforward and well understood, their tax implications are often overlooked or misunderstood in financial planning practice. Because option premiums, exercise outcomes, and assignment events directly affect the timing, character, and recognition of taxable income, the after-tax performance of these strategies may differ significantly from their pre-tax results. As a result, investors relying solely on pre-tax analysis may reach suboptimal decisions in taxable portfolios.

For financial planners advising clients with taxable investment accounts, it is therefore critical to understand how option strategy outcomes interact with tax rules and reporting requirements. In particular, option premiums are generally taxed as short-term capital gains, while exercise and assignment events adjust either the sale proceeds of existing holdings or the cost basis of newly acquired shares. These mechanics influence not only the magnitude of returns but also when and how those returns are taxed.

To illustrate these differences, this study presents a simplified numerical comparison of covered calls and cash-secured puts under common market assumptions. The example demonstrates that although both strategies can produce similar after-tax income when options expire worthless, their tax consequences diverge when options result in stock transactions. Covered call exercise may accelerate the recognition of capital gains on appreciated shares, whereas cash-secured put assignment reduces the cost basis of acquired shares and defers gain recognition until a later sale.

By highlighting these distinctions, the current paper underscores the importance of incorporating tax considerations into option strategy selection and provides a foundation for more tax-efficient portfolio management.

## 2. Literature review

The existing literature on option writing strategies has primarily focused on their performance characteristics, particularly in the context of income generation and portfolio risk management. Early studies on covered call and buy-write strategies (Whaley, 2002; Callaghan, Livingstone, and Subrahmanyam, 2003; Hill et al., 2006) examine their risk–return profiles and demonstrate their potential to enhance returns in neutral or moderately bullish market environments. These findings are reinforced by practitioner-oriented research, which emphasizes the role of covered call overlays as effective tools for increasing portfolio yield (O’Shaughnessy and Reid, 2012). While this body of work provides valuable insights into the economic benefits and trade-offs of option strategies, it largely concentrates on payoff structures and volatility characteristics, with limited attention to the tax implications associated with option transactions.

A separate and well-developed strand of literature addresses tax-aware portfolio management and the impact of taxation on investment outcomes. Research in this area shows that portfolios with identical pre-tax returns may produce significantly different after-tax results due to variations in the timing and realization of gains. For example, Dammon, Dunn, and Spatt (2004) demonstrate that tax deferral can meaningfully alter long-term portfolio performance and optimal asset allocation decisions. Building on this foundation, Horan, Peterson, and McLeod (2009) introduce the concept of a tax-efficient frontier, incorporating tax effects directly into portfolio optimization frameworks. Financial planning research further highlights practical strategies such as asset location, tax-loss harvesting, and capital gain management as essential tools for improving after-tax outcomes (Poterba, 2002; Kitces and Haynes, 2015). Collectively, this literature underscores the importance of evaluating investment strategies within an after-tax framework, particularly for investors operating in taxable accounts.

Within the derivatives literature, Rosenbloom and Schizer (2000) provide important insights into the tax treatment of option transactions, emphasizing how statutory classifications can lead to different timing and character outcomes for economically similar positions. Their work highlights that option-related tax rules, such as those governing premium recognition, basis adjustments, and holding periods, can materially affect realized investment outcomes. This line of research suggests that the interaction between derivative strategies and tax policy is complex and can influence investor behavior and portfolio performance. Despite these contributions, relatively little research integrates the economic mechanics of option writing strategies with their tax treatment in a unified framework. In particular, the intersection of option outcomes—such as expiration, exercise, and assignment—with capital gain recognition and basis adjustments remains underexplored in applied financial planning contexts. This gap is notable given the widespread use of covered calls and cash-secured puts by both individual investors and financial advisors.

This current study contributes to the literature by providing a numerical, illustrative example that compares the after-tax consequences of writing a covered call versus a put option. It extends prior research on option strategy performance and tax-efficient investing by demonstrating how tax considerations influence the after-tax returns of these two strategies under different scenarios.

## 3. Illustrative numerical example

The following simplified example illustrates how the tax consequences of covered calls and cash-secured puts may differ despite similar economic intent. While both strategies are intended to provide income, their after-tax consequences differ under certain scenarios. In other words, the example here highlights that two strategies with similar economic intent may produce different tax

consequences depending on whether the investor already owns the stock and whether assignment or exercise occurs.

Assume the following:

- Current stock price = \$100
- Call strike price = \$105
- Put strike price = \$95
- Option premium received = \$3 per share
- 1 option contract = 100 shares
- Short-term capital gains tax rate = 32%
- Long-term capital gains tax rate = 15%

Scenario 1: Covered Call:

Assume the investor already owns 100 shares purchased at \$80 per share and writes a covered call with a strike price of \$105, receiving a premium of \$3 per share.

Case A: Option Expires Worthless:

The stock remains below \$105 at expiration, so the option expires worthless.

- Option premium received =  $\$3 \times 100 = \$300$
- Tax treatment = short-term capital gain
- Tax owed =  $\$300 \times 32\% = \$96$
- After-tax premium income =  $\$300 - \$96 = \$204$

In this case, the investor keeps the shares and earns \$204 after tax from the option premium.

Case B: Option Is Exercised:

Assume the stock rises above the strike price and the shares are called away.

- Original stock basis =  $\$80 \times 100 = \$8,000$
- Sale price at strike =  $\$105 \times 100 = \$10,500$
- Premium received = \$300
- Adjusted sale proceeds =  $\$10,500 + \$300 = \$10,800$
- Total capital gain =  $\$10,800 - \$8,000 = \$2,800$

Assume the stock qualifies for long-term capital gain treatment:

- Tax owed on gain =  $\$2,800 \times 15\% = \$420$
- After-tax proceeds =  $\$10,800 - \$420 = \$10,380$

Relative to the original \$8,000 basis, the investor's after-tax gain is \$2,380.

This example shows that the covered call generates premium income, but it may also accelerate recognition of embedded stock gains if the shares are called away.

Scenario 2: Cash-Secured Put:

Assume instead that the investor does not currently own the stock and writes a cash-secured put with a strike price of \$95, receiving a premium of \$3 per share.

Case A: Option Expires Worthless:

The stock remains above \$95, so the put expires worthless.

- Option premium received = \$300
- Tax treatment = short-term capital gain
- Tax owed =  $\$300 \times 32\% = \$96$
- After-tax premium income = \$204

This outcome produces the same after-tax premium income as the covered call expiration case.

Case B: Option Is Assigned:

Assume the stock falls below \$95 and the investor is assigned.

- Purchase price at strike =  $\$95 \times 100 = \$9,500$
- Premium received = \$300
- Adjusted stock basis =  $\$9,500 - \$300 = \$9,200$
- Effective cost per share = \$92

At assignment, there is no immediate capital gain or loss recognition. Instead, the premium reduces the basis of the acquired shares.

Assume the investor later sells the shares for \$110 per share after holding them long enough for long-term treatment:

- Sale proceeds =  $\$110 \times 100 = \$11,000$
- Adjusted basis = \$9,200
- Long-term capital gain =  $\$11,000 - \$9,200 = \$1,800$
- Tax owed =  $\$1,800 \times 15\% = \$270$
- After-tax proceeds =  $\$11,000 - \$270 = \$10,730$

Relative to the adjusted basis of \$9,200, the after-tax gain is \$1,530.

This example shows that the cash-secured put does not create immediate gain recognition upon assignment. Instead, it provides a lower effective purchase price, which may improve after-tax outcomes if the shares later appreciate.

Table 1 presents the comparison of the after-tax outcomes of covered call and cash-secured put strategies. This illustration highlights two key tax-aware planning insights. When options expire worthless, covered calls and cash-secured puts generate similar after-tax premium income. However, when the option leads to a stock transaction, the tax consequences diverge. Covered call exercise may accelerate recognition of capital gains on appreciated shares, whereas put assignment reduces the cost basis of acquired shares and defers gain recognition until the shares are eventually sold.

**Table 1. Illustrative Comparison of After-Tax Outcomes: Covered Calls vs Cash-Secured Puts****Panel A. Covered Call Strategy**

Scenario	Pre-Tax Outcome	Tax Treatment	Tax Owed	After-Tax Result
Option expires worthless	Premium income = \$300	Short-term capital gain	\$96	\$204 income
Option exercised	Stock sold at \$105 $(\$105 \times 100 + \$300) -$	Premium added to sale proceeds	—	—
Capital gain calculation	\$8,000 = \$10,800 proceeds – \$8,000 basis	Long-term capital gain	\$420	\$2,380 after-tax gain

**Panel B. Cash-Secured Put Strategy**

Scenario	Pre-Tax Outcome	Tax Treatment	Tax Owed	After-Tax Result
Option expires worthless	Premium income = \$300	Short-term capital gain	\$96	\$204 income
Option assigned	Stock purchased at \$95 $(\$110 \times 100) - \$9,200 =$	Premium reduces stock basis	—	—
Later stock sale	\$11,000 proceeds – \$9,200 basis	Long-term capital gain	\$270	\$1,530 after-tax gain

**Note:** The example assumes a stock price of \$100, option premiums of \$3 per share, a contract size of 100 shares, a short-term capital gains tax rate of 32%, and a long-term capital gains tax rate of 15%. Covered call exercise may accelerate recognition of capital gains on appreciated shares, whereas put assignment reduces the cost basis of acquired shares and defers gain recognition until the shares are sold.

Table 2 summarizes the results.

**Table 2. Summary Comparison**

Strategy	Scenario	Pre-Tax Result	Tax Owed	After-Tax Outcome
<b>Covered Call</b>	Option Expires worthless	\$300 premium	\$96 STCG tax	\$204 income
<b>Covered Call</b>	Option Exercised	\$2,800 total gain	\$420 LTCCG tax	\$2,380 after-tax gain
<b>Cash-Secured Put</b>	Option Expires worthless	\$300 premium	\$96 STCG tax	\$204 income
<b>Cash-Secured Put</b>	Assigned, then later sold	\$1,800 gain on sale	\$270 LTCCG tax	\$1,530 after-tax gain

The next section includes our concluding remarks.

#### 4. Conclusion

This study examines the tax implications of covered call and cash-secured put strategies and highlights the importance of evaluating these commonly used option writing approaches within an after-tax framework. While both strategies are frequently employed to generate income and manage portfolio entry and exit decisions, their tax treatment differs in ways that can materially affect realized investment outcomes. The analysis demonstrates that although option premiums are generally taxed as short-term capital gains, exercise and assignment events alter either the timing of gain recognition or the cost basis of the underlying securities, leading to differences in after-tax performance.

The illustrative comparison shows that when options expire worthless, both strategies produce similar after-tax income. However, when options result in stock transactions, the outcomes diverge. Covered calls may accelerate the realization of capital gains on appreciated positions, potentially increasing near-term tax liabilities, whereas cash-secured puts defer gain recognition by reducing the basis of acquired shares and shifting taxation to a later sale. These distinctions underscore that strategies with similar economic intent can produce meaningfully different tax consequences.

By presenting this numerical example, this paper contributes to both the academic literature and financial planning practice. The findings emphasize that tax-aware implementation is critical for optimizing after-tax returns in taxable portfolios. For financial advisors and investors, incorporating tax considerations into option strategy selection can improve decision-making, enhance portfolio efficiency, and better align investment strategies with long-term financial objectives.

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